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EFFECTS ON USE OF TESTS BY TEACHERS TRAINED IN A SUMMER INSTITUTE.
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THE IMPACT OF INTENSIVE TRAINING IN A SUMMER GUIDANCE INSTITUTE UPON VARIOUS COUNSELING ATTITUDES AND PRACTICES WITHIN THE JUNIOR AND SENIOR HIGH SCHOOL EDUCATIONAL STRUCTURE OF THE STATE OF ILLINOIS WAS INVESTIGATED. THE SUMMER PROGRAM WAS HELD FOR ABOUT 30 TEACHERS FROM DIFFERENT SCHOOLS THROUGHOUT THE STATE. THESE SCHOOLS DIFFERED WIDELY IN GEOGRAPHICAL LOCATION AND PHYSICAL SIZE. PRINCIPAL EFFORTS OF THE RESEARCH PROGRAM OCCURRED AFTER THE INSTITUTE WAS COMPLETED AND THE TEACHER TRAINEES RETURNED TO FULL- OR PART-TIME COUNSELING POSITIONS WITH THEIR RESPECTIVE SCHOOLS. A RESEARCH TEAM WAS FORMED TO FOLLOWUP THE ACTIVITIES OF EACH TRAINEE FOR A PERIOD OF 1 YEAR, AND ALSO OF OTHER COUNSELORS, ADMINISTRATORS, AND TEACHERS IN EACH SCHOOL. RESULTS OF THIS COMPREHENSIVE FOLLOWUP PROJECT FURNISHED INFORMATION ON THE ROLE PRESCRIPTION WITHIN WHICH SCHOOL COUNSELORS WORK, SHOWED SOME PATTERNS OF COMMUNICATION WITHIN SCHOOLS IN THE GUIDANCE AND COUNSELING AREA, AND POINTED OUT THE RELATIONSHIPS BETWEEN KNOWLEDGE ABOUT TESTING AND COMMUNICATION AMONG SCHOOL FACULTY MEMBERS CONCERNING THE USE OF TESTS AND TEST RESULTS IN THE SECONDARY SCHOOL GUIDANCE PROGRAM. UPON THE TRAINEES THEMSELVES, THE INSTITUTE PRODUCED SOME LONG-LASTING EFFECTS WITH RESPECT TO KNOWLEDGE ABOUT TESTING AND CONCEPTIONS OF THE COUNSELING ROLE. UPON THE SCHOOLS TO WHICH THE TRAINEES RETURNED, THERE WERE SIGNIFICANT, THOUGH NOT GREAT, GAINS IN THE SHARPNESS OF OPINION ABOUT THE COUNSELING ROLE AND CLEAR INCREASES IN THE QUANTITY OF DISCUSSION ABOUT GUIDANCE AND TESTING. (JH)

VOLUME I

EFFECTS ON USE OF TESTS BY TEACHERS TRAINED IN A SUMMER INSTITUTE

Cooperative Research Project No. 702

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BUREAU OF EDUCATIONAL RESEARCH · COLLEGE OF EDUCATION · UNIVERSITY OF ILLINOIS · URBANA

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* J. T. Hastings, P. J. Runkel, D. E. Damrin, R. B. Kane, and G. [illegible]. Larson. *The Use of Test Results* (Coop. Res. Proj. No. 509) Urbana: Univ. of Ill., Bur. Educ. Res., 1960.

* P. J. Runkel, J. T. Hastings, and D. E. Damrin. *Changes in Schools Which Do and Do Not Send Staff Members to Training Institutes in Counseling.* (Coop. Res. Proj. No. 939) Urbana: Univ. of Ill., Bur. Educ. Res., 1961.

P. J. Runkel and D. E. Damrin. Effects of Training and Anxiety Upon Teachers' Preferences for Information About Students. *J. Educ. Psychol.*, to appear in 1961.

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EFFECTS ON USE OF TESTS
BY TEACHERS TRAINED IN A SUMMER INSTITUTE

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VOLUME I

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CHAPTER I

OVERVIEW

The purpose of this study was to investigate the impact of intensive training in a summer guidance institute upon various counseling attitudes and practices of (1) the individuals who were participants in the institute, and (2) the faculties of the schools to which these individuals returned.

The particular institute with which the study was concerned was among the first of the NDEA programs initiated for the purpose of extending guidance and counseling services in the nation's secondary schools. It was conducted at the University of Illinois during the summer of 1959 for a selected group of 29 persons. Twenty-seven of these persons were experienced classroom teachers whose interests in guidance had led them to seek specialized training in the area. Of the remaining two, one was a librarian and one was already a full-time counselor. All but three of the 29 returned to the schools in which they had been teaching for an average of approximately 12 years. Seven returned to take up full-time counseling positions, eight had three-quarter time counseling assignments, and thirteen had from quarter to half-time duties as counselors. One person did not take up counseling duties at all, but went to a teaching position at a new school. Because of the loss as a counselor of this last person, the schools in our sample number 28.

The Sample

The schools to which the participants returned represented a broad range of characteristics. Geographically they were located in every section of the state. In physical size they ranged from schools graduating more than 1000 students each year to one graduating fewer than 20. Some were located in heavily industrialized areas, some in upper middle class suburbias, some in small country towns, and some in completely rural areas. Economically they included well-to-do schools whose teachers were among the highest paid in the state along with schools located in economically depressed areas. And in regard to the peculiarly relevant variable of counseling facilities, they ranged from schools with large, full-time counseling staffs superior to those in many colleges to schools in which the summer institute participant was not only the single counselor, but a part-time one at that.

A condition of the admission of each individual to the institute was that the school principal agree to permit a research team from the University to follow up the activities of the participant for a period of one year. When the research staff asked if this follow-up could be extended to the total faculty, all 28 principals graciously consented. The follow-up thus involved not only the Institute participants themselves, but also the other counselors, administrators, and teachers in the school.

Members of the research staff visited all schools early in the fall of 1959 to orient the faculty to the plan of the study. They returned a few weeks later for a period of intensive interviewing and testing of all faculty members. In the spring of 1960 data collection was carried on largely by mail, but in the fall of 1960 the research staff again returned to the schools for a final period of interviewing and testing. A total of 563 teachers, 91 counselors, and 132 school administrators were tested in addition to the original 28 summer institute participants (see Chapter II).

Care was taken about matters of rapport and "feedback." Not only was each school visited and questions answered at a faculty meeting before actual data collection began, but careful and lengthy arrangements were made with each principal by telephone and letter during the preceding summer. In one school, representatives of the teachers' union were consulted. In the spring of 1960, just following the data collection of that spring, a report of results (Appendix J) developed by that time was sent to every participant in the study. After these reports had been received, a senior member of the research staff visited each school to answer questions about the report. Great care was taken in these meetings not to give any suggestions about how the respondents "ought" to have answered in the questionnaires or in the interviews. We carefully avoided commitments about "good" attitudes or practices. Another report to participants (Appendix K) was sent to everyone in the early spring of 1961, and a copy of the final report was sent to each school. Occasional letters were conscientiously answered.

To study the effectiveness of a specified amount and kind of training in a sample of subjects and schools of such diversity as those in our sample presented a formidable task. To draw generalizations from the data we amassed presented an even more formidable one. Yet because the NDEA institutes were created for the specific purpose of influencing guidance and testing practices in schools like those in this study, the worth of the effort seemed to exceed its difficulty. The chapters which follow thus represent our attempt to answer the simple question, "Did it do any good?"

Instruments

Our first task was to design the instruments necessary for collecting data to answer two broad questions: (1) How do school people regard and use tests? (2) How do school people regard counselors and counseling practices? Our final instruments ranged from simple questionnaire items to complex measures which required individual administration. All are explained in Chapter III, but will be mentioned in this overview as necessary for understanding the major results.

The Effect of the Institute on the Trainee

One of our first questions concerned the impact of the institute upon the knowledge, attitudes, and perceptions of the participants themselves. What changes occurred, and how lasting were they? Our analysis of impact (Chapter IV) centered around four areas: (1) changes in knowledge of tests and their interpretation; (2) changes in the use of test data in making decisions about students; (3) changes in attitudes toward the use of tests in counseling students; (4) changes in the perception of the role of the school guidance counselor.

Changes in test knowledge were assessed by means of scores on an objective, sixty-item multiple choice test called "Knowledge and Interpretation of Tests" (KIT), which was administered before, immediately after, and one year following the institute. We found that, as a group, the participants entered the institute with a level of knowledge slightly above that of the average teacher in our sample of 28 schools, and left with a level slightly above that of the average counselor. After a year's time, a certain percentage of this gain had been lost, lowering the participants' final level of knowledge to that possessed by the average counselor. We concluded that institute training in this area had the long range effect of raising the participants' technical knowledge to the level of their professional peers.

Our study of changes in the way the trainees used test data in making decisions about students involved the use of an individual test known as the Card Sort. This instrument consisted of the cumulative record cards for 28 fictitious eleventh grade students. Each card contained information about the students' individual academic abilities, achievements, and interests both in the form of test scores and in the form of descriptive comments made by the students' teachers and advisers. On many of the cards the information provided by test scores was contradicted by the comments made by teachers. In taking the test the individual was asked to study each card and to decide, on the basis of the information given, whether the student should be placed in an accelerated eleventh grade science class or in a regular science section. The test was scored by examining the placement of cards which contained conflicting information. It was assumed that the person whose placement decisions coincided with the favorable test scores had greater faith in tests than in the subjective evaluations of teachers. Conversely, the person whose decisions coincided with the verbal assessments by teachers was assumed to have less faith in tests than in the personal judgment of those who had worked with the student.

The Card Sort Test was administered early in the institute and again at its close. Perhaps the most significant change which occurred was the participants' movements away from their initial dependence upon objective data about a student's academic ability, and toward dependence upon subjective data which revealed how the student "felt" about things. In other words, data which provided evidence about students' expressed feelings and interests were, at the close of the institute, weighted far more heavily than were data which showed students' IQ's and achievement test percentiles. We inferred from this change that in the course of the institute the participants had been led to put more weight on the pupil's own interest in deciding what kinds of educational opportunities he should have, test data serving more to alert the counselor to the odds for the student's success.

Attitudes toward the usefulness of tests in counseling students were assessed at the close of the institute and one year later. Analysis showed these attitudes to be mildly positive and highly stable over time. Our attitude measure, however, was indirect and may have reflected nothing more than the generally positive feeling which characterized the participants' perception of the institute in toto. Even so, the results were in line with those obtained using the Card Sort in that they indicated a mild -- as contrasted to an extreme -- acceptance of tests.

The participants' perception of the counseling role was determined by means of a checklist of behaviors typically expected of school counselors. All participants were asked to indicate (1) whether these behaviors were desirable and ought to be expected of a school counselor and (2) which behaviors were actually being expected of them by their schools. This checklist was also given to the three instructors who conducted the institute, each instructor being asked to indicate which behaviors constituted the ideal counseling role. The instructors' ratings of the items on the checklist constituted what we termed the "Expert Key," and were used to score the participants' responses.

Analysis revealed that the institute had a powerful and lasting impact upon the participants' views of what ought to be expected of a school counselor. Of the 25 items in the Expert Key, the mean agreement scores for the total group of participants were 19.8 in the fall of 1959, 19.4 in the spring of 1960, and 18.6 in the fall of 1960. This substantial and stable agreement was particularly impressive in view of the finding that the participants' schools demanded quite different behaviors of them, presumably putting some strain on the trainees' ability to maintain prolonged agreement with their institute instructors. In fact, only one of the 28 participants was significantly more influenced by his school than by the institute instructors, and over a period of six months even this influence had dissipated (see Table IV-9, Chapter IV).

The Counselor's Role

Chapter V is devoted to an intensive study of the counseling role as perceived by the faculty-at-large in the participants' schools. We learned that virtually no widespread consensus existed regarding what a counselor ought and ought not to do. Of the 39 duties described on the Counselor's Role Checklist only nine were checked as appropriate by as many as two-thirds of our sample, and only three were checked as inappropriate by as many as one-half of our sample. These twelve items were taken to define whatever "core counseling role" can be said to exist in these schools. This core role was comprised of behaviors which placed the counselor in the position of serving the needs of parents, students, and teachers, while barring him from specific clerical, disciplinary, and teaching duties.

Faculty perceptions of appropriate counseling duties proved to be quite stable over time, significant changes occurring in only nine of the items. Study of these items revealed that in general teachers were growing farther apart in their views about what the counselor ought to do but coming to a wider consensus regarding what he ought not to do. By contrast, faculty perceptions of the duties actually assigned to counselors in their schools proved to be very unstable. Significant changes occurred in 44 percent of the items, indicating either that the schools made several changes in expected duties or that teachers were becoming more accurately informed about the trainees' responsibilities.

When we compared the responses of teachers to the responses of counseling experts we found low agreement on both the appropriate and the expected duties of the trainee. Furthermore, although the agreement with the experts on the appropriateness of duties remained very stable over time, the agreement between expected duties and those listed by experts showed a steady decline, indicating that in practice the schools were moving farther away from the "ideal counseling role" as defined by the institute instructors.

Knowledge, Training, and the Use of Test Results

In Chapter VI we come to grips with the problem of how training and knowledge affect test use. Extensive data were collected on many different aspects of teacher behavior in this area and several hypotheses were tested. Three of these hypotheses are theoretical in nature and will probably prove of greater interest to the specialist than to the professional educator. The other two hypotheses are of an intensely practical nature and will, we believe, generate wide interest among practitioners.

Of the two "practical" hypotheses, the first is that the self-selection of counselors for the distinctive role they play in the school, as well as the distinctive nature of the general training they receive, causes them to regard and use test data differently from teachers and administrators. Much to our surprise, this proved not to be true. Regardless of the measure of test use employed or the technique of analysis used, all differences between counselors, teachers, and administrators disappeared when differences in specific training and knowledge were taken into account. In other words, preferences in test use were found not to be a function of the role played by the individual in his school, but of the amount of knowledge he possessed about tests and their interpretation. One explanation for the absence of differences between the specialist (i.e., the counselor) and the generalist (i.e., the classroom teacher) is that the role of the public school teacher has been broadened to such an extent that it now encompasses many of the attitudes and ways of thinking about students which are found in the role of school specialists. Another possible explanation is that since counselors enter their profession via the classroom, they already possess all of the deep-seated attitudes and values typical of teachers and hence are essentially "teachers" who possess a few bits of specialized knowledge. In any event, the findings generate much speculation.

The other hypothesis of practical significance sprang from the rather wide-spread belief that school people tend to place extreme faith in tests or to reject them as useless, much to the detriment of the student involved. Expecting to find great variation in the faith with which tests were invested, we went on to hypothesize that respondents with more training and knowledge, as compared to those with less, regard and use test results in less extreme ways. Our analyses provided only weak and partial support for this hypothesis. This was due partly to the fact that we did not, after all, find a great prevalence of extreme test use among the members of our sample. Also it may have been partly due to the insensitivity of our measures.

Our more abstract hypotheses stemmed from certain widely accepted theories about cognitive structure. Specifically, knowledge and training provide an individual with an increasingly complex set of interrelated concepts useful in dealing with stimuli relevant to the field in question. Cognition can thus be regarded as ranging from the highly differentiated and articulated structure of the expert to the simple and undifferentiated structure of the novice. Given a well-articulated structure, the number of cognitive dimensions (or criteria) available for making discriminations among stimuli is large. Given a simpler cognitive structure, the number of such dimensions is small.

One hypothesis is that under exposure to a range of differing influences, or stimuli, a more differentiated cognitive structure is more stable than is a simpler structure. This hypothesis was clearly supported in a comparison of the stability of the decision-making process of respondents with different levels of knowledge and training. A second and closely related hypothesis states that training in the use of information about students is related to the dimensionality within which the relevant information is cognized. The prediction made was that added training would first decrease and then increase cognitive dimensionality. The prediction was based on the assumption that initial training restricts the number of criteria used to judge the matter at hand by supplying the respondent with a few basic principles to apply in situations where chaos had previously reigned. Further training, however, progressively increases the number and complexity of the criteria used in judging; hence, dimensionality is increased. This hypothesis also received strong support from our data.

Finally, there is a growing body of evidence which indicates that anxiety serves to reduce cognitive dimensionality by causing the person to narrow his focus of attention to a few aspects of the field. When we tested this hypothesis using anxious and non-anxious subjects, it too received reasonable support.

Test Practices and Attitudes

Chapter VII is devoted to an examination of the attitudes toward tests and testing which were prevalent among our faculty population. The measures used to evaluate attitudes were designed to provide information about the respondents' receptivity to testing in the broad sense, the frequency with which they utilized test results when consulting with others, and the amount of their professional intra-faculty communication that was devoted specifically to matters of guidance, counseling, and testing. We regarded communication about tests as a particularly valid means of assessing attitude since teachers, like most other people, tend to talk a great deal about things they regard as important in their work.

It was found that schools differed very little among themselves, and even less over time, on a 20-item Test Attitude Index which measured receptivity to a comprehensive school testing program. School mean scores fell slightly above the half-way point on this index, indicating the presence of a widespread, moderately-to-strongly positive, and highly stable attitude. In view of the fact that the Test Attitude Index was a measure of teachers' feelings about "what ought to be done" in their school's testing program, we viewed this generalized receptivity as encouraging.

As a basis for a Test Discussion Score, respondents were asked how frequently they made use of test results when consulting with parents, students, and other teachers. Although schools were slightly more variable among themselves in this respect than they were on the Test Attitude Index, they were even more stable over time, implying a somewhat greater stability of actual practices of this sort than of ideal attitudes.

Our measure of the amount of intra-faculty communication about guidance and testing, however, revealed a very different picture. Clear evidence was obtained that significant changes occurred over time in almost half of the schools. Only one of these changes was negative, indicating a decreased amount of such communication; all of the remaining changes were positive although only ten possessed statistical significance.

The sophisticated reader might dismiss this finding as attributable merely to the Hawthorne effect, and in part he might be correct. Certainly schools cannot be as thoroughly researched as were these 28 and not show some increase in discussion about the central topic of the research effort. However, when detailed analyses were made of the relations between test attitudes, test knowledge, and test discussion, the results indicated that significant trends found for the total sample were weakened and even reversed when certain sub-groups of the sample were analyzed. Specifically, a significant relationship was found to exist among the variables involving knowledge about tests, discussion of tests, and attitudes toward tests. When the sample was divided into sub-groups on the Test Knowledge variable, the relation between discussion and attitude was significant only for the high knowledge group, lost significance for the middle knowledge group, and was reversed for the low knowledge group. The Hawthorne effect is of no moment in differential relations of this sort. The response to being researched typically increases the general level of a variable, or widens its spread, or both. Neither of these effects need alter the relation of the variable with other variables. In exchange for the small danger that the Hawthorne effect might have distorted certain relations among variables through shifting the range of one or both, we feel we have profitted from the acceleration of change processes which the Hawthorne effect surely added to what would have been the normal pace of events in the schools in our sample.

Analysis of Influence

Chapters VIII, IX, and X are concerned with the study of one of the most elusive of psychological variables -- influence. Who influences whom in a school? How does influence spread? By what means are perceptions changed? The great expenditures of time and funds involved in nationwide projects such as the NDEA institutes are made, we presume, in the hope of influencing present school practices. Our problem was to ascertain whether, and in what ways, this succeeded in the case of the Illinois summer institute of 1959 -- an institute in our opinion exceptionally well organized and one which drew glowingly approving voluntary comments from participants.

The exact nature of the processes mediating influence will remain a mystery for a long time. We do know, however, that influence requires communication of some sort and that its presence, therefore, can be ascertained by measured changes in variables which make up the content of the verbal information which flows through established conversational channels. Simply stated, if A talks frequently with B and if, over time, their views become more in accord, we infer that influence has occurred in one direction or another, or in both.

The necessity for obtaining precise data about both the frequency and the lines of communication within each of the schools in the study led to the development of the Communication Network Questionnaire. This instrument consisted of a list of the names of the total faculty in the school. Each respondent was asked to indicate, for every person on this list, (1) how often he conversed with that person, (2) whether his conversation was predominately social or predominately professional in nature, and (3) how much of his conversation of a professional nature was devoted specifically to matters of guidance and testing. These data were combined in a variety of ways to provide indices which described the density and flow of communication in the school, as well as communication scores such as those mentioned above in reference to Chapter VII.

Before approaching the central problem of assessing the influence of the summer institute participants upon their respective faculties, it seemed good strategy to lay a groundwork of evidence of the validity of the communication measure. We made use of the familiar hypothesis relating communication and attraction to do this. This hypothesis, that people tend to direct their communication more frequently to those to whom they feel attracted and vice versa, seems to be so widely accepted as fact that we found very few direct tests of the hypothesis in the literature. Furthermore, since we were dealing with a particular technical kind of communication (on the topics of guidance and testing), it seemed to us that we should study the relevant kind of attraction -- that of respect for another's competence in the technical area. Our hypothesis, accordingly, became this: that respect between individuals is associated with the frequency of relevant communication between them. Of the hypothesis in this form we found no direct test whatsoever in the literature. We were happy to find that we could kill two birds with one stone; we could provide evidence of construct validity for our measure and simultaneously contribute to the literature on attraction and communication.

This hypothesis was tested using data which provided information about (1) intra-faculty respect for individual competence in matters of guidance and counseling, and (2) intra-faculty communication on these matters. Sixteen schools were employed to test the hypothesis. Since each school was analyzed individually, the results can be regarded as sixteen independent replications of the experiment. In each school, faculty members were divided into three communication groups: (1) densely connected, (2) loosely connected, and (3) unconnected. The prediction was made that the level of respect within these groups would decline progressively with the decline in communication density. In nine of the schools the respect levels fell precisely in the order predicted. In six of the remaining schools the order changed slightly but in no instance was reversed. In only one of the schools did the densely connected group have a lower level of respect than did the other two.

Having begun with the postulate that respect catalyzes influence and having successfully used our measures to demonstrate a strong (though not infallible) relation between communication and respect, we next faced the question whether any counselor inevitably draws respect and communication in his school, whatever the quality of his previous training. It would be fallacious to credit the summer institute with eventual influence in the school if we were to discover that an individual could become influential merely by being named a counselor.

Specifically, we needed to determine whether the school counselor was respected because he was a counselor, or whether respect might be free to vary with genuine competence. To answer this question, we grouped our respondents into teachers and specialists (i.e., counselors, deans, and administrators) and analyzed their communication-respect choice patterns. With no small delight we found that the official position of the other did not account for any important part of the association the respondents showed between their communication links and their respect choices. This implies that if the institute participants did influence their co-workers, they did so because of personal qualities and efforts and not merely because they had stepped into a role which in itself demanded respect. This finding also warned us, if respect facilitates influence, that some of our summer institute participants would be likely to turn out to be less than influential.

The foregoing results are presented in detail in Chapter VIII. They show that frequency of communication is strongly related to level of professional respect and that this relation is not an automatic function of official school role. It follows that a straight-forward way to detect the influence by the summer institute participants upon their faculties is to look for difference in opinion change among co-workers who were in close communication with them and co-workers who were not. It also follows that whatever influence (as measured by opinion changes) is found to exist is very probably due to a genuine competence -- much of which was presumably developed during the institute.

Admittedly, having a promising technique for detecting influence exerted by the trainees upon their colleagues did not enhance our optimism about discovering the existence of significant effects. In fact, everything was against such an occurrence. First, most of the trainees were assigned only part-time counseling duties. Second, many returned to schools in which several counselors of greater experience and prestige were already entrenched. Third, practically all the trainees were teachers of long standing in their schools, and their faculties were accustomed to seeing them in that role. Fourth, and perhaps most important, the selection of only one person from each school flew in the face of well-established principles of the social psychology of influence in that no trainee could avail himself of the mutual support and greater resistance to contrary influence which probably would have been gained from training a team of two or three. We therefore limited our search for influence to the two variables which appeared to us to be most amenable to change, namely, opinions about the counseling role (Chapter IX) and opinions about the dissemination of test results (Chapter X).

In our study of changes in these two variables we first examined overall differences in faculty perceptions from Time 1 (fall of 1959 or spring of 1960) to Time 2 (fall of 1960). Analysis of changes in school mean scores from Time 1 to Time 2 justified our pessimism about the presence of significant influence by the trainees on the schools as a whole. The occasional instances of statistical significance which did occur were based upon such small increments that we regard them as being of no practical importance.

Following the line of reasoning developed above, we turned our attention to changes among schools with differing densities of intra-faculty communication. Here we found partial, but gratifying, support for the logic of our approach. A significant relation was obtained between density of communication in the school as a whole and mean increase in faculty awareness of the trainees' counseling duties. A significant relationship was also found between communication density and increased faculty agreement with the trainee on the test dissemination practices employed in his school. Other relationships studied, however, proved not to be significant.

Our most rewarding results were obtained when we grouped faculty members on the basis of their closeness to the trainee in frequency of communication about guidance and testing. In each school the respondents were divided into five groups arranged in descending order of communication closeness. Respondents' certainty about both the "ideal" and the "real" (i.e., expected) counseling role was analyzed with the 1959 and the 1960 data. Without exception the relationship between certainty and communication closeness showed significantly monotonic trends in the expected direction.

This result suggests that the causal direction might have been from the summer institute participant to the faculty. To be more sure of the causal direction, we next looked at increases of certainty on the part of faculty members grouped according to closeness of communication with the trainee. In respect both to the "ideal" and the "real" counseling roles, those faculty members in closer communication with the summer institute participant showed more positive increases than those farther away from the trainee. This seemed good evidence that influence was taking place to produce increased certainty among those in close communication with the trainee, since above-average increase in certainty could obviously not be expected in groups closely connected to any person picked at random.

We turned, finally, to an analysis of increase in agreement (not merely certainty) between the faculty and the trainee in matters of counseling and testing. This analysis employed "agreement scores" which showed the extent to which each respondent answered questions about the counseling role and about test dissemination practices in the same way as did the trainee. Differences in agreement scores from Time 1 to Time 2 provided information about changes in the amount of agreement with the trainee over time. Mean agreement scores were computed for each school. The results showed that agreement between faculty and trainee on what the counselor ought to do increased markedly in some schools and decreased as markedly in others, with an insignificant overall movement. Analysis by communication groups, however, again gave some evidence that greater increases of agreement occurred between the trainee and faculty members who were in closer communication with him.

An index of increase in agreement does not in itself show which member of a communicating pair influenced the other. Accordingly, an index of influence on the part of the summer institute participant was worked out which compared changes in opinion on the part of the trainee (or the faculty member) with items of opinion on the part of the faculty member (or of the trainee) which had remained stable from Time 1 to Time 2. Using this index of trainee influence, we again found wide variations among schools in regard to the influence of the trainee on opinion about what the counseling role ought to be. Three schools showed significant trainee influence on the faculty and two schools showed significant faculty influence on the summer institute participant. Although a majority of the schools tended to show positive influence on the part of the trainee, influence of the trainees as a group was negligible.

The analysis of the influence index by communication groups was particularly revealing. Even though three schools had shown significant mean influence indices in favor of the trainee, the trainees as a group tended to succumb to the influence of those faculty members in closest communication with them. In other words, although close communication tended to bring trainee and faculty into closer agreement than was achieved when communication was more distant, this increase of agreement came about chiefly through the trainee changing his opinions about the appropriate role of the counselor toward the stable opinions of the faculty.

Near the beginning of this chapter, we asked the simply-phrased question whether the summer institute "did any good." To find some answers to this question, we could not study every manner in which all those involved in the institute might have hoped it would do some good. The aspects of the institute and its consequences which we did study, however, showed some clear gains.

Upon the trainees themselves, the institute produced some long-lasting effects in respect to knowledge about testing and conceptions of the counseling role. Upon the schools to which the trainees returned, there were significant, though not great, gains in the sharpness of opinion about the counseling role and clear increases in quantity of discussion about guidance and testing.

However, in regard to altering opinions and practices in the schools in a particular direction -- that is, toward certain opinions or practices which might be selected in advance as "good" -- there was no evidence whatsoever of such a shift on the part of the schools as a whole in any of the statistical treatments with which we probed the data. From the point of view of research goals, nevertheless, we feel that this lack of overall practical effect on the schools is more than balanced by the knowledge which has been gained about the processes mediating the various kinds of changes which did take place.

CHAPTER II

THE SAMPLE

The sample consisted of the 28 junior and senior high schools in Illinois which the 28 Summer Institute Participants (hereafter referred to as SIPs) returned in the fall of 1959. These schools represented a very broad range of characteristics. Geographically they were located in every section of the state. In physical size they ranged from schools graduating more than 1000 students each year to one graduating fewer than 20. Some were located in heavily industrialized areas, some in upper middle class suburbias, some in small country towns, and some in completely rural areas. Economically they included well-to-do schools whose teachers were among the highest paid in the state, as well as schools located in the most severely depressed areas. And in regard to the peculiarly relevant variable of counseling facilities, they ranged from schools with large, full-time counseling staffs superior to those in many colleges to schools in which the SIP was not only the single counselor, but a part-time one at that.

Practical considerations prevented us from including all teachers in each school in our study. We included every counselor and every administrator regardless of how many there were in the school, but limited the absolute number of teachers in accordance with the following arbitrary rules:

Schools with 25 or fewer faculty:	Included all teachers
Schools with 26-70 faculty:	Select 50 percent of all teachers
Schools with 71 or more faculty:	Select 40 percent of all teachers

The selection of teachers in schools with faculties greater than 26 was not random. Instead, teachers were stratified on the basis of the amount of communication about guidance and counseling the SIP anticipated having with each of them during the coming school year (on the basis of his past experience in the school), and selections were made randomly within these strata. In this way we obtained a representative sample of each

SIP's personal milieu, balancing this group to include teachers presently close to him (whom he could be expected to influence but with whom his communication might decrease) as well as teachers distant from him (with whom his communication and influence might increase) thus:

a) 10 percent of the sample consisted of teachers with whom the SIP conversed frequently and specifically about guidance and counseling.

b) 10 percent consisted of teachers with whom the SIP conversed frequently about "teaching topics" including guidance and counseling. This group excluded all teachers already selected in (a) above.

c) 10 percent consisted of teachers with whom the SIP conversed with some frequency about any topic, including teaching and unrelated matters as well. This group excluded all teachers already selected in (a) or (b), above.

d) 10-20 percent consisted of teachers with whom the SIP had little contact at the time but with whom he felt an exchange of guidance and counseling information would be desirable. This group excluded all teachers already selected in groups (a), (b), or (c).

Table II-1 shows the number of individuals in the three categories of teachers, counselors, and administrators from each school in the study. The left side of the table provides data on the number in the original sample, the right side shows the number who were still in the study one year later. The drop-out which occurred was due largely to individuals changing schools, although in some instances it resulted from deliberate withdrawal because of decreased interest in the research, illness, or in one case death.

Table II-2 provides data showing differences on three of our critical variables between the respondents who remained in the study through the fall of 1960 and those who dropped out. These three variables were (1) test knowledge, as measured by the respondent's score on an objective test, (2) educational level, as measured by the number of semester hours of college work the respondent had taken, (3) amount of communication about guidance, as measured by the self-reports of the respondents. The data in this table show that significant differences occurred between the two groups on test knowledge and on educational level, but not on communication. Those persons remaining in the study tended to have a somewhat lower

Table II-1. Number of teachers, counselors, and administrators in the study sample in each of the 28 schools in the fall of 1959 and in the fall of 1960.

	Fall of 1959				Fall of 1960			
School	Teachers	Counselors*	Administrators**	Total	Teachers	Counselors*	Administrators**	Total
018	27	10	11	48	19	7	11	37
091	17	6	8	31	11	5(a)	5	21
117	25	5	7	37	13	4(a)	5	22
153	16	7	8	31	8	6(a)	6	20
177	13	1	2	16	10	0(a)	1	11
188	24	2	3	29	21	2	3	26
244	17	1	2	20	15	1	2	18
257	68	7	9	84	57	7	8	72
264	15	2	3	20	14	1	3	18
274	10	4	9	23	10	1	9	20
280	14	6	10	30	11	6	10	27
281	15	1	2	18	12	0(a)	1	13
301	25	3	6	34	23	3	5	31
343	16	1	2	19	10	1	1	12
415	19	1	3	23	16	1	3	20
430	24	3	6	33	19	1	6	26
463	17	3	3	23	14	2	2	18
484	21	1	3	25	15	1(a)	3	19
488	17	7	6	30	11	5	5	21
495	25	4	5	34	23	4	4	31
526	18	1	3	22	15	1(a)	3	19
531	21	2	4	27	8	1(a)	4	13
538	17	2	1	20	7	1	1	9
600	23	1	4	28	17	1	4	22
601	14	4	6	24	8	4	6	18
602	22	2	2	26	14	1	1	16
603	14	3	1	18	12	3	1	16
604	9	1	3	13	6	1	2	9
Total	563	91	132	786	419	71	115	605

*Includes the SIP.

**Includes both full-time administrators and teachers such as department heads who have administrative responsibilities.

(a)SIP's in these schools had left their positions by the time of the fall 1960 data collection.

level of technical knowledge about tests, but a somewhat higher level of general education than did those who dropped out. These facts should be kept in mind when reading the findings based on the fall 1960 data. The frequencies of respondents in all ranges of these three variables, however, were sufficiently large in 1960 for tests of relationships between variables to be conducted.

The twenty-one male and seven female SIPs presented a picture as diverse as that of their schools. With the exception of one full-time counselor and one librarian, all were entering the guidance field via the classroom. Ten were teachers of history and the social studies, four of English, four of mathematics and science, four of health and physical education, two of foreign language, and the remaining two of industrial arts and of typing respectively. In regard to training, one person held an Advanced Certificate in Education, nineteen were Masters and eight Bachelors. In teaching experience they ranged from one to thirty years, with a median of twelve years.

Table II-2. Percentage distributions of test knowledge scores, educational level, and amount of guidance communication for drop-outs and for others.

Test Know. Score	Drop-outs	Others	Educ. level	Drop-outs	Others	Guid. Commun.	Drop-outs	Others
40 - up	21	14	Bach.	48	30	Great	26	29
30 - 39	37	45	M.A.	41	48	Average	40	36
0 - 29	42	41	Adv. Degree	11	22	Little	34	35
Total	100	100		100	100		100	100
N	161	396	N	140	424	N	198	512
$X^2=6.61$	$P<.05$		$X^2=16.40$	$P<.001$		$X^2=1.16$	$P>.50$	

With regard to the number of years the SIPs had been in the schools to which they returned following the institute, twenty-six had been in their schools from one to fifteen years, with a median of six years. Only two went from the institute to new schools. Finally, seven of the group returned to their schools as full-time counselors, eight had three-quarter time counseling assignments, eleven had half-time, and two had quarter-time.

By the fall of 1960 the original group of 28 had been decreased to 20. Some left for positions at other schools, one became an administrator, one died.

CHAPTER III

THE INSTRUMENTS

A wide variety of measuring devices were employed to obtain the data reported in later chapters. Each of these was created to serve the specific aims and needs of the research designed described in Chapter I; none was a standardized or published instrument. The measures and their administrations are summarized in Table III-1, with a brief description of each following. All instruments and the specific scores derived from them are discussed in detail in the chapters devoted to their analysis.

The KIT Test (See Appendix A)

This was a multiple choice test entitled Knowledge and Interpretation of Tests (KIT). It was written by a member of the project staff and pre-tested on a sample of 50 classroom teachers not in the study. Revisions based on the results of pre-testing produced a 60-question test composed of items which measured understanding of fundamental principles and concepts in the area of tests and measurement. Analysis of these items revealed that the test's reliability (as established by the Kuder-Richardson formula 21) ranged from .68 to .74 on four different samples and that 73 percent of the items had bi-serial coefficients with the total score of .30 and above.

The test was administered to all subjects in the fall of 1959. In addition it was given to all SIPs at three different times: (1) pre-institute, (2) immediate post-institute, (3) one year post-institute.

The Card Sort Test (See Appendix B)

This instrument consisted of a set of facsimile cumulative school record cards, one for each of 28 imaginary eleventh grade students. These cards contained, in varying combinations, objective test information about each student's intelligence, subject matter achievement, and interest, along with subjective evaluations by imaginary teachers of each student's ability, classroom performance, and interests. On a few of these cards the

Table III-1. List of major instruments.*

Name and appendix location	Description	Times administered			Illustrative scores or data
		Fall 1959	Spring	Fall 1960	
Test of Knowledge and Interpretation of Tests (App. A)	Sixty items on concepts and principles in testing.	Total sample; also to SIPs pre-institute		SIPs only	KIT
Card Sort (App. B)	Twenty-eight simulated Cumulative Record Cards for use in assessing weight given by respondent to different kinds of information about students. Two versions: one given to SIPs during the institute and one given in fall 1959 and thereafter.	Total sample; also to SIPs mid- and post-institute		Total sample	T-NT
Counselor's Role Checklist (App. C, D, E)	Seventy items (fall 1959) or 39 items (spring and fall 1960) on possible duties of the SIP in the school.	Total sample	Total sample	Total sample	Agreement with experts, agreement with SIP, etc.
Student problems (App. C and E)	Hypothetical problems of students which might come to a teacher's attention.	Total sample			
Communication network (App. F)	Questionnaire asking each respondent about the frequency of his conversations about guidance and testing with every other respondent.	Total sample		Total sample	Level of communication, paths and groupings of communication links, etc.

Table III-1., continued.

Name and appendix location	Description	Times administered Fall 1959	Spring	Fall 1960	Illustrative scores or data
Respect (App. C, p. 31 and F, part C)	"Please write here the names of your school staff whose judgment about counseling or testing you highly counseling or testing you highly respect."	Total sample, except admin-ist'rs		Total sample	Respect choices
Substantive learning check-list (App. G)	List of topics of instruction covered during the institute.		SIPs only	SIPs only	Perception of profit from the institute
Anxiety (App. C, section V)	Self-report questions chosen to index anxiety-security.	Total sample, except admin-ist'rs			Anxiety-security

*In addition to the instruments listed in the table a questionnaire was given concerning educational viewpoints (App. C and D), and interviews on various topics were held with SIPs and principals in spring and fall 1960. Further, various questionnaires and interviews elicited "background information:" subjects taught, number of courses in testing, number of years at school, etc.

objective and subjective information presented a consistent picture of the student; that is, both tests and teachers stated that the student was interested, capable, and productive, or stated that he was the opposite. On a majority of the cards, however, the picture of the student presented by his test scores and the picture presented by teachers who had worked with him in class were conflicting. For example, the tests might show a student to be far above average in intelligence but teachers would report that he was definitely below average in mental ability. The purpose of these conflicting cards was to determine which type of information -- test scores or teachers' judgments -- most influenced a teacher's decision about the student. In all instances the decision to be made was whether the student should be placed in an accelerated science class or retained in the regular program.

The Card Sort Test provided scores having a possible range from 24 to 88 with a neutral point of 56. A score above 56 indicated that the teacher placed greater weight on test scores in making curricular placement decisions than upon teacher judgment. A score below 56 indicated that the teacher placed greater weight on teacher's subjective evaluations of the student than upon objective test scores. These "Test versus Non-test" scores (hereafter referred to as T-NT scores) had reliabilities of .71, .79, and .85 (as established by the Kuder-Richardson formula 20) on three different samples of individuals.

The test was administered to all members of the sample in the fall of 1959 and again in the fall of 1960.

The Counselor's Role Checklist (See Appendices C, D, and E)*

This instrument consisted of a comprehensive list of activities typically and frequently expected of school guidance counselors. The original version, administered to all members of the sample in the fall of 1959, consisted of 70 activities. Respondents were asked to indicate for each activity (1) whether the activity was expected of the SIP in their school, and (2) whether they believed the activity ought to be expected of a counselor in the SIP's position.

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*The version used in the fall of 1959 forms Section II of Appendix C; that used in the spring of 1960 forms Section III of Appendix D; that used in the fall of 1960 forms Section III of Appendix E.

Analysis of the fall 1959 data revealed that the list contained a great amount of redundancy. Accordingly, the number of activities was cut to 39 and these were used in the spring 1960 and fall 1960 periods of data collection with all teachers and counselors.

Student Problems (See Appendices C and E)*

The "Problems" section of the questionnaire was designed to determine what kinds of information a teacher typically sought when confronted with students in need of guidance. In contrast to the highly structured Card Sort Test, these problems permitted choice of six kinds of information in a wide variety of situations.

Originally the task consisted of 16 problems, each of which provided a brief description of a student and his difficulty. The respondent was asked to indicate which of six different types of information (intelligence, achievement, interest, home life, fears, personality) he would like most to have in working with this student. The respondent marked his first, second, and third choices of types of information for the problem and in addition indicated the method he felt was best to use to obtain each type.

There were four problems in the area of occupational choice, four in the area of school discipline, four in academic achievement, and four in personal adjustment. Preliminary analysis revealed that these distinctions were not perceived by the respondents and that there was a sizeable amount of overlapping among problems in the four areas. In consequence, four problems which appeared to overlap with the greatest number of others were eliminated and analyses were conducted only on the remaining twelve. This section of the questionnaire proved burdensome to so many members of the sample that we shortened the task to four problems in the final instrument administered in the fall of 1960.

Test Use (See Appendices C, D, and E)**

This section of the questionnaire was designed to assess teachers' opinions about several aspects of test use in their schools, as well as their own attitudes and practices in regard to the use of test data generally.

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*The version used in the fall of 1959 forms Section I of Appendix C; that used in the fall of 1960 forms Section II of Appendix E.

**The questions used in the fall of 1959 are found in Section III of Appendix C; those used in the spring of 1960 are found in Section I of Appendix D; those used in the fall of 1960 are found in Section I of Appendix E.

Specifically, the questions were designed to provide data on the following:

1. Test Discussion Practices. Teachers were asked how frequently they discussed test results with (a) other teachers, (b) students, and (c) parents. Their responses were scored on a scale ranging from 3 ("frequently") to 0 ("never"), providing a total score on Discussion Practices which ranged from 0 to a maximum of 9.

2. Attitude Toward a Comprehensive Testing Program. Teachers were presented with a list of six general types of tests and asked which ones they believed ought to be administered in their school. They also were presented with a series of descriptions of administrative practices which might be used to disseminate test information to parents, students, and teachers, and asked to indicate which ones they would like to see employed in their school. These items of information were summed to provide what we termed the Test Attitude Index. The rationale for this Index was that teachers with favorable attitudes toward testing would state that a variety of tests ought to be used in their school, and that teachers would favor all administrative practices which led to a broad use of tests in the daily program. The Index had a range from 0 to 20, with 20 indicating a highly favorable attitude.

3. Test Confidence. This part of the questionnaire was designed to obtain a global measure (called T-ACQ in Chapter VI) of the relative confidence a teacher placed in test data -- as opposed to a personal knowledge -- in making decisions about students. Scores on the items could range from 0 to 4, with 4 indicating maximum confidence in tests.

The Communication Network (See Appendix F)

The most complex of all instruments was the communication network, an instrument designed to measure the amount and kind of conversational contacts which existed among the faculty in each school. Booklets comparable to the fictitious one in Appendix F were made up for every school and administered to all respondents. These booklets contained the name of every staff member, regardless of whether he was a member of our sample. The results provided a precise picture of "who talked to whom" about guidance and counseling in the fall of 1959, and how this picture changed over the period of one year. The manner of deriving indices from the responses will be described later.

Respect (See Appendices C and F)

This measure was devised to assess which members of a particular faculty were most respected by their colleagues for their judgment in the area of guidance and counseling. The question was made part of the communication network in fall 1960 by including it as Part C (See Appendix F); in 1959 it appeared on page 31 of the questionnaire booklet shown in Appendix C.

Substantive Learning Checklist (See Appendix G)

This instrument was designed for use with the SIP only. It consisted of twelve types of learning in the general area of counseling and test use which received some emphasis during the participants' training in the summer institute. Every SIP was asked to indicate the amount of value he believed each of the twelve held for him in his specific school situation. The instrument was administered to the participants immediately following the institute, and again in the spring and in the fall of 1960.

Anxiety Questionnaire (See Appendix C)

This instrument consisted of nine personality test items exerpted from the Guilford-Zimmerman Temperament Schedule, in combination with fifteen items from Sauders' Personality Research Inventory (PRI). The nine items from the Temperament Schedule comprised a homogeneous measure of "feeling of security". The PRI items were included merely to provide a sensible context in which to imbed the extremely short security test. Analysis of responses to the PRI items, however, revealed that four of them had tetrachoric coefficients with total score on the security test of .38, .42, .42, and .69. These items were added to the original nine, providing a final test of 13 items. The test was administered to all respondents in the fall of 1959.

CHAPTER IV

EFFECT OF THE INSTITUTE UPON THE TRAINEE

The twenty-eight individuals who participated in the guidance institute held at the University of Illinois during the summer of 1959 began their training on June 8th and terminated it on August 7th. Although the instruction they received during this eight-week period ranged broadly over the guidance and counseling field, the research staff limited its evaluation of changes in the participants' knowledge and attitudes to those specifically related to the role of the counselor in the school, and the use of tests in counseling students. Ideally, of course, one would evaluate the effects of training by examining changes in trainees' actual practices in working with students. In this case a pretest-posttest design using such a criterion was impossible since most of the SIPs had not previously been in counseling positions. In choosing the variables we did, our purpose was not to undertake a comprehensive or balanced evaluation of the "worth" of the institute but rather to ascertain levels and trends in some of the abilities or attitudes among the SIPs. In later chapters we will look at these abilities and attitudes in connection with the effects of the SIP on the faculty. This chapter is organized around four major areas in which changes were systematically assessed.

Changes in knowledge of tests and test interpretation

The 60 item KIT test (Appendix A) was administered to all participants at three different times: (1) at the start of the institute, (2) immediately following the close of the institute, (3) 14 to 16 months after the close of the institute. Table IV-1 shows the distribution of scores obtained during these periods. The number of SIPs varies because one participant failed to take the test in the pre-institute session and because, as explained in Chapter II, the sample had decreased to 20 by the fall of 1960.

Table IV-1. **KIT score distributions for SIPs at different time periods.**

Test Score	Pre-Institute	Post-Institute	After One Year
50-54		1	
45-49	1	4	1
40-44	6	10	4
35-39	6	9	9
30-34	10	4	6
25-29	3		
20-24	1		
N	27	28	20
Mean	35.1	40.1	37.3
S.D.	5.7	4.9	4.1

The mean scores indicate that the institute had a distinct, but certainly not striking, effect upon the participants' test knowledge. When compared with the test performance of other teachers and counselors in the sample, these mean scores become more interpretable. A total of 374 teachers and 59 counselors in the respondents' schools also were given this test in the fall of 1959. The mean score obtained by teachers was 30.2; that obtained by counselors was 37.4. These figures show that our 28 SIPs started at a level of knowledge slightly above that possessed by teachers-in-general and increased their level to a point slightly above that of counselors-in-general. Some of this gain was lost over the year, bringing their final score in line with the mean for the 59 counselors. If we look only at the means for the 20 individuals who remained in the study a year later the picture remains essentially the same. The pre-institute mean for these persons was 33.6, and the post-institute mean was 38.9.

Changes in the use of test data in decision making

Changes in the amount of weight given to test data in making decisions about students were evaluated by use of the Card Sort test. This test was administered to all SIPs (N=28) during the early part of the institute and again immediately following its close. The version used in these two administrations was an experimental form characterized by greater complexity than the later form designed for general use with teachers.* In addition to the intelligence, achievement, and interest data which the teacher's form contained, the SIP's form provided data on the students' home and family background, high school grade averages, motivation, and extracurricular activities. Furthermore, SIPs not only were asked to make a decision about the group (accelerated or regular) in which the student should be placed, but also to state how certain they were about the accuracy of their decision in each case. Finally, the SIPs' decision time was recorded for each card.

One of the most striking changes which occurred in the SIP's behavior from the first to the second administration was the very great increase in the time it took them to sort the cards. When they first took the test each spent an average of fifteen or fewer seconds per card. In fact, in many instances two to five seconds were sufficient for them to make their judgments about the student described. On the second administration the respondents' time rose to as much as two to three minutes per card. This was apparently not due to any increase of feeling on their part that they were being "graded" on their performance but resulted, according to volunteered reports from some of them, from their sharpened perceptions of the complexity of the information and the difficulty of weighing the data in an intelligent and equitable manner.

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*For the SIP Form, see Appendix N; for the Teacher Form, See Appendix B.

This viewpoint is supported by certain of the placement changes which occurred in sorting the cards. Table IV-2 shows how many of the twenty-eight SIPs placed each card in the accelerated group on the first and on the second administrations of the test. Of the 20 cards, four (Cards 4, 10, 13, 14) showed changes large enough to be of importance.

Examination of the student described on these four cards (see Appendix H) reveals that in every instance the factor of "interest" seems to have become more salient, or at least more determining, for the SIPs. Eight persons reversed their decisions on Card 4 by placing it in the regular group on the second administration. This card describes a student who possesses excellent intelligence and achievement scores but no interest in science. Five persons reversed their decisions on Card 10, placing it in the accelerated group instead of the regular. On this card the student is one with good (but not superior) intelligence and achievement plus interest in science. Seven and ten persons reversed themselves on Cards 13 and 14 respectively. These cards are of special importance because both depict students of relatively low intelligence and achievement coupled with extremely high interest in science. Both cards were originally placed in the regular group, and later placed accelerated.

These marked differences in student placement indicate that many of the trainees may have learned to temper the objective and impersonal evidence contained in test scores with evidence which showed how the student "felt" about things. In fact, the data imply that the SIPs had been taught that in our democratic society with its student-centered educational philosophy the student's own interest is the determining factor, and that test data serve primarily to alert him to the odds of his success.

Table IV-2. Number of SIPs placing indicated cards in the accelerated group at the first and second administrations of the Card Sort Test during the summer of 1959. See Appendix H for replicas of the cards used.

	No. Placed Accelerated at:		
Card No.	First Admin.	Second Admin.	Difference
1	15	11	-4
2	2	6	4
3	19	21	2
4	14	6	-8
5	0	0	0
6	2	0	-2
7	5	9	4
8	28	28	0
9	0	0	0
10	22	27	5
11	5	8	3
12	3	0	-3
13	5	12	7
14	2	12	10
15	18	15	-3
16	16	14	-2
17	25	24	-1
18	24	25	1
19	13	11	-2
20	0	0	0

The participants' movement away from intelligence and achievement test data as factors of primary importance in academic placement decisions is more clearly shown by the change which occurred in their "test-dependency" scores. The test-dependency score is the number of cards the respondent placed in the group which would seem to be dictated by the student's intelligence and achievement test scores. Ten of the cards depicted students with IQs of 120 or above and achievement percentile ranks of 80 and higher. On the grounds of ability alone these students should easily be able to handle accelerated work. The remaining ten cards depicted students with IQs around 105 and achievement percentile ranks below 50. If only the tests were examined, one would predict that these students would have difficulty with accelerated work. The test-dependency score was computed so that a score of 20 would be obtained by the respondent who placed all of the high IQ and Achievement score cards in the accelerated group and all of the low IQ and Achievement score cards in the regular group.

A comparison of the pre-and post-institute test-dependency score revealed three sub-groups of SIPs:

No-Change Group:	persons whose score was identical in both testings.
Negative-Change Group:	persons who decreased the number of cards they placed in the group dictated by the IQ and Achievement Test scores.
Positive-Change Group:	persons who increased the number of cards they placed in the group dictated by the IQ and Achievement Test scores.

The mean pre and post-institute test-dependency scores are shown in the left half of Table IV-3.It seems that most SIPs moved from an extreme position in test use to a more moderate one. This is indicated, first, by a small, but not significant, decrease in the standard deviation from 2.6 to 2.0. Secondly, the fact that the negative change group decreased to a post-institute mean below the total mean of 15.2 and the positive change group to a mean above that total mean also argues that the change might be more than a regression effect. (With only twenty cases, we did not think it profitable to correct the post-institute scores for regression. In addition, the three groups showed systematic changes in other variables discussed later on.)

Table IV-3. Mean test dependency scores and mean decision certainty scores for three different SIP groups.

Group	N	Test Dependency Mean Scores Pre-Inst.	Test Dependency Mean Scores Post-Inst.	Decision Certainty Mean Scores Pre-Inst.	Decision Certainty Mean Scores Post-Inst.	Difference
No-Change	6	16.0	16.0	43.6	46.7	3.1
Negative-Change	14	17.5	14.6	42.4	45.1	2.7
Positive-Change	8	13.5	15.5	44.6	45.6	1.2
Total	28	16.0	15.2	43.3	45.6	
S.D.		2.6	2.0			

Of equal interest are the data on decision certainty given in the right half of Table IV-3. After the respondent had placed a card in one of the two classes (accelerated or regular) he was asked to choose an expression of certainty about the accuracy of his decision. His statements were scored 3 for almost completely certain, 2 for fairly certain, 1 for very uncertain, and these weights were summed to obtain a total score, which could range from 20, uncertain, to 60, very certain. Table 3 shows that although all groups increased in subjective certainty, the two change-groups increased the least. The differences, although not statistically significant, may be due to the fact that the individuals in these groups, having learned so recently to take a greater variety of facts into account, had not yet become comfortable with the added complexity. This interpretation of a result which is not statistically significant seems worth making because it is supported by the differences among the groups' knowledge about tests as measured by the KIT.

Table IV-4 shows that the No-Change group not only possessed the greatest amount of knowledge at all three testings, but also was the only group to show a continued increase in knowledge a year after the close of the institute. Faith in tests (reflected by stability in extent of relying on tests and in a feeling of certainty in making use of test scores exempli- by the No-Change group) is apparently a function of the amount of knowledge the individual possesses about them. This interpretation is supported by the relation shown in Chapter VI between KIT scores and test use scores derived from the teacher form of the Card Sort.

Table IV-4. Mean KIT scores for three SIP sub-groups.

	N	Pre-Inst.	Post-Inst.	Fall 1960
No-Change	6	35.8	40.2	41.4
Negative-Change	14	33.6	39.4	36.8
Positive-Change	8	32.0	37.7	35.3

As mentioned earlier, the teacher form of the Card Sort test was given to the 20 SIPs who remained in our sample in the fall of 1960. This form of the Card Sort was designed to yield a test-non-test score (T-NT) -- see Appendix B -- which indicated to what extent the respondent relied on test data (as opposed to the subjective judgments of other teachers) in making academic placement decisions. The T-NT score is therefore very similar in meaning to the test dependency score taken from the earlier version of the Card Sort. In contrast to the SIP form, scores on the teacher form had a possible range of 24 to 88 with a neutral point of 56. A score above 56 indicated that the respondent placed greater weight on test scores; a score below 56 indicated that he placed greater weight on the subjective judgments of other teachers.

It is not possible to compare directly the T-NT score on the teacher form with the test dependency score on the SIP form of the Card Sort test. We can, however, examine how the three sub-groups of SIPs compared with each other and with the total faculty in the 28 schools. These data are given in Table IV-5. They strongly support both of our earlier interpretations, namely (1) that as a group the SIPs moved from a position of high dependency on test scores to one of less dependency (compare their means of 16.0 and 15.2 relative to a neutral point of 10.0 in Table IV-3 with their mean of 54.9 relative to a neutral point of 56.0 in Table IV-5) and (2) faith in tests is directly related to the amount of knowledge the person possesses about them. (See Tables IV-4 and IV-5.)

Table IV-5. Mean test-non-test scores of teachers, administrators, counselors, and SIP sub-groups on the teacher form of the Card Sort test.

Group	N	T-NT Scores Fall 1960 Teacher Form	
		Mean	S.D.
No-Change	5	63.4	6.8
Negative-Change	9	54.6	9.9
Positive-Change	6	48.3	7.9
All SIPs	20	54.9	10.6
All Teachers	401	53.2	19.7
All Administrators	122	58.8	20.0
All Counselors	59	60.2	19.8

Table IV-5 shows that teachers-in-general had a significantly lower mean T-NT score (p. $<$ .01 by t-test) than did either administrators ($t = 2.71$) or counselors, ($t = 2.51$) indicating that the latter two groups relied more heavily on tests in making academic placement decisions than they did on the subjective judgments of others, relative to teachers. The twenty SIPs, however, did not score like counselors-in-general (a mean of 54.9 versus 60.2), but like teachers-in-general (54.9 versus 53.2). In view of the fact that, prior to their attendance at the Summer Institute, all but one of the SIPs was a classroom teacher, it would appear that their training had little effect upon their use of tests one year later other than that of intensifying whatever tendencies they originally had. This picture becomes clearer when one examines the mean T-NT scores for the three sub-groups of SIPs.

The No-Change group, which maintained a high test dependency score on the earlier version of the Card Sort (16 out of a possible 20) and which increased the most in decision certainty, obtained a T-NT mean score above that of counselors-in-general and markedly above the means obtained by the other two sub-groups. The five persons in this group apparently entered the institute with relatively high confidence in tests for the purposes represented by the Card Sort and were apparently left uninfluenced by institute training.

The Negative-Change group, which showed a decrease in test dependency during the institute and a moderate increase in decision certainty, showed a mean T-NT score comparable to that for teachers-in-general. Of the three, this sub-group might be said to have retained the immediate effect of institute training -- an effect which resulted in their perceiving tests more like the average teacher (which each of them originally was) than like the average counselor in our sample of schools.

The Positive-Change group consisted of those who showed a slight increase in confidence in test data during the institute. Nevertheless, they possessed the least amount of knowledge about tests throughout the period of research (Table IV-4) and after one year had moved farther than any other group toward a rejection of test results. Their mean T-NT score is the lowest of the three SIP sub-groups, and also well below the mean for teachers-in-general (Table IV-5). This exceptionally low mean, standing out as it does below all other means in the table, suggests an active rejection of institute training in this area and a return to their original pre-institute position. Whether this rejection stems from an inability to learn about tests, or lack of interest in tests, or some other factor is impossible to say.

Although the comparability of instruments was complicated by the necessity to develop the Card Sort instrument after the institute was already in session, the findings seem to us sufficiently consistent to warrant the conclusion that use of test data was more affected by knowledge (measured here by the KIT) than anything else. This conclusion is consistent with the findings under Hypotheses 2 and 4 of Chapter VI.

Changes in Attitudes Toward the Use of Tests in Counseling

Assessment of attitudes in this area was made indirectly in an attempt to mitigate halo effect. The trainees, of course, knew that this was a major area of concern for the research staff and we did not wish their awareness to influence our results. One way we avoided this difficulty was to make use of what we termed the Substantive Learning Checklist (See Appendix G), an instrument which obtensibly measured the perceived job-relevance of certain types of training in testing (among other things) received during the institute. Our assumption was that types of training perceived as highly relevant indicated what were, for the SIP, the salient and important aspects of his position in his school. That is, a person with positive attitudes regarding the worth of tests in his work would perceive any training he received in this area as both valuable and relevant. In addition, increases or decreases in the SIP's perception of relevance over time would, we believed, reflect his changing attitudes toward the value of tests in his work.

The checklist consisted of 12 items, 10 of which were specific to the use of tests and test data in counseling. (See Appendix G.) It was administered to the trainees at three different times: (1) immediately following the Institute in August of 1959, (2) in the spring of 1960, (3) in the fall of 1960. In the post-institute administration the SIP was asked to predict how relevant each type of training would be for his job in the coming year. In the other two administrations he was asked to state how relevant he had found each type of training to be for his work in the school. In every instance he checked the learning as "of great relevance," "of some relevance," or "of little relevance," these being weighted 3, 2, 1 respectively.

Our first step was to sum the above ratings for the ten items and obtain a Test Relevance score for each SIP. The range of this score was from 10 to 30, 30 being obtained by the individual who marked every item as possessing "great relevance" for his work. The score distributions for the pre-institute and two post-institute testings are given in Table IV-6. The small decreases in the mean scores over time imply that as a group the participants held testing in moderately high regard over the entire period. A chance score would have been 20 and the maximum 30. The obtained values were around 23. The stability (see following page) of the ratings of individual items makes it unlikely that the mean values in Table IV-6. chance values.

Examination of the specific items in the checklist reveals that they were tremendously stable over time, insofar as being perceived as highly or moderately relevant to the SIPs' jobs. Table IV-7 shows the mean rating given each item, and the rank order of the item at each time period. The general order of the items contains few surprises; those which have practical value for the counselor's daily work are high on the list and those of a more abstract and erudite nature are at the bottom.

Table IV-6. Test relevance scores on the substantive learning checklist at three different points in time.

Total Score	End of Summer	Spring 1960	Fall 1960
29-30	2		
27-28	8	2	1
25-26	5	5	3
23-24	4	7	5
21-22	3	9	6
19-20	2	3	3
17-18	2	0	1
15-16	1	1	1
13-14	0		
11-12	1		
N	28	27	20
M	23.7	22.7	22.3
S.D.	4.4	2.5	2.7

Table IV-7. Rank orders on job-relevance of test use items on the substantive learning checklist at three different times.

	Item	Post-Institute		Spring 1960		Fall 1960	
		Rank	Mean Rating	Rank	Mean Rating	Rank	Mean Rating
6	Techniques of interpreting test results to students.	1	2.93	1	2.78	1	2.90
5	Usefulness of specific, commonly used tests.	2	2.64	3	2.70	2	2.75
3	Interpreting test statistics.	3	2.61	3	2.70	4	2.45
4	Sources of information about tests.	4	2.46	3	2.70	3	2.70
7	Techniques of interpreting tests to parents.	5.5	2.43	6	2.26	5.5	2.15
8	Diagnostic use of tests in counseling.	5.5	2.43	5	2.37	5.5	2.15
11	Techniques for influencing other faculty members regarding tests and their uses.	7	2.39	7	2.00	7	2.10
2	Developing local norms.	8	2.14	10	1.59	9	1.70
12	Sources of research on tests.	9	2.04	8	1.93	8	1.85
10	Specific research on test development use.	10	1.64	9	1.70	10	1.65

Tables IV-6 and IV-7 indicate that SIPs valued the training they received in the area of testing and test interpretation, and that their feelings remained highly stable over time. Generally speaking their attitudes were mildly positive ones. This interpretation is consistent with the findings of the previous section, since the SIPs as a whole scored near the average of all subjects in confidence in using tests in the Card Sort placement decision (Table IV-5), while the items considered most job-relevant were those which provided help in discussing tests with students and parents (Table IV-7). However, even the mildly favorable mean attitude toward the items in Table IV-7 may be spuriously high. It is possible that the ten items on the substantive checklist reflected the institute's halo effect on SIPs. That is, because the trainees viewed the institute in toto as valuable they responded positively to questions about one of its aspects. (Ten out of twelve of the items in the entire checklist were used in the relevance score.)

Changes in Perception of the Role of the School Guidance Counselor

The data in this section are based upon SIPs' responses to twenty-five items in the Counselor's Role Checklist. The checklist originally consisted of 80 questions. These were administered to the SIPs immediately following the close of the institute and analyzed for redundancy and ambiguity. This analysis resulted in a shorter list of 39 items (Appendix D). This list was administered to all persons in the sample, including the SIPs, at three different times: (1) fall of 1959, (2) spring of 1960, (3) fall of 1960.

The Counselor's Role Checklist was also given to the three instructors who conducted the institute, with the instruction to respond to each item on the basis of whether the item described a duty that was generally appropriate for a school guidance counselor to perform. The instructors marked the items at two different times; once in the fall of 1959 and again in the spring of 1960. Analysis revealed that the three agreed with themselves over time and also with each other on 25 of the 39 items. Their responses to these 25 items (see Appendix I) were used to define our so-called "Expert Key", and this key was used to score each SIP's responses at each of the times the latter marked the checklist.

The SIPs were asked to follow the same directions in marking the checklist as were their instructors; i.e., whether each item was an appropriate duty for a school counselor to perform. They were also asked to mark each item on the basis of whether the item described a duty which was presently being expected of them in their schools. Applying the expert key to these two sets of SIP responses provided, among others, the two scores which will be discussed in this section:

1. SIP's Appropriateness Score: The extent to which the SIP agreed with his instructors on appropriate duties for the school counselor. The higher the score, the higher the agreement with the experts.

2. School's Expectation Score: The extent to which the SIP's school (as reported by the SIP himself) agreed with the Institute instructors on what the faculty was expecting of the SIP. The higher the score, the more closely the school was expecting of the SIP what the experts felt should be expected of a counselor.

Changes in these scores over time were studied in an attempt to determine the effect of the institute upon the SIPs in this area.

Table IV-8 shows the mean scores made by the total group of SIPs at each of three different administrations. The slight decrease in the SIP's Appropriateness scores is not significant. The relatively high means and low standard deviations indicate that the SIPs left the institute in rather high agreement (chance expectation would have been 12.5) with their instructors and that their ideas about how the counseling role should be defined had changed very little after a year had elapsed. The significantly lower mean scores on School's Expectation indicate that the schools (in the SIP's perception) defined the counseling role somewhat differently than did the experts. The slight increase in these three means was not significant.

Table IV-8. Scores taken from the Counselor's Role Checklist. See text for explanation.

	SIP's Appropriateness			School's Expectation		
	Fall 1959	Spring 1960	Fall 1960	Fall 1959	Spring 1960	Fall 1960
N	28	28	19	28	28	19
Mean	19.8	19.4	18.6	12.3	12.4	13.2
S.D.	3.2	3.2	3.4	4.9	3.5	3.6

The marked differences between the way the SIPs and their schools defined the counseling role led us to investigate whether some of the trainees were succumbing to the latter's influence. Or, to put it another way: which had the greater influence on the SIP's perception of the ideal counselor role, the school in which he worked or the experts who conducted the institute? To answer this question we converted the profile of responses given by each SIP into three coefficients of agreement. These were:

R_1: The number of items which both the SIP and the three instructors marked as "appropriate".

R_2: The number of items which the SIP marked as both "appropriate" and "expected of him".

R_3: The number of items marked "appropriate" by the instructors and marked "expected" by the SIP.

Now, if R_1 is significantly greater than R_2 we can state with some assurance that the SIP's perception of the ideal counselor was influenced more by the instructors than by the realities of his school situation, and vice versa. If R_3 and R_1 are about equal (indicating that the SIP's perception of school expectations defines the counseling role in much the same terms as do the three instructors) then there is no way of determining whether the SIP's perception of school expectations or the opinions of the instructors were more influential in molding the SIP's attitudes. Finally, changes in the relationship between the fall of 1959 and the spring of 1960 provide evidence regarding the stability of the training the SIP received in this area.

Cochran's Q* was employed to determine the significance of the differences found among these three coefficients and the .05 level was adopted as the cut-off point; i.e., if $p > .05$ the difference was regarded as not significant. The results of this analysis are shown in Table IV-4 The individual coefficients of agreement for each SIP in the all of 1959 and in the spring of 1969 are reported and "<" and ">" signs appear wherever the differences exceeded the .05 level of significance. In this table SIPs are grouped according to "influence score", those highest in the table being individuals who were more influenced by the institute instructors than by their schools.

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*Cochran, W. G. The comparison of percentages in matched samples. Biometrika, 1950, 37, 256-266.

Table IV-9. **Coefficients of agreement on counseling role in the fall of 1959 and the spring of 1960.**

	Fall 1959					Spring 1960					
SIP	R_2		R_1		R_3	R_2		R_1		R_3	
301	12	<	23	>	10	11	<	20	>	11	GROUP I
430	12	<	23	>	12	16	<	21	>	17	
488	14	<	23	>	12	14	<	22	>	13	
181	12	<	21	>	9	10	<	19	>	10	
264	9	<	22	>	7	8	<	23	>	8	
343	12	<	20	>	9	11	<	22	>	11	
117	11	<	20	>	8	7	<	21	>	8	
326	11	<	17	>	11	14	<	20	>	14	
551	12	<	20	>	9	10	<	20	>	9	
600	7	<	18	>	1	15	<	21	>	15	
177	8	<	16	>	6	17		19		14	GROUP II
257	9	<	23	>	7	15		20		10	
538	13	<	22	>	12	14		18		13	
603	15	<	22	>	13	18		18		14	
244	11		12		7	15	<	22	>	14	GROUP III
280	16		18		13	15	<	22	>	12	
281	22		23		21	16	<	23	>	14	
604	17		20		12	8	<	24	>	8	
018	22		21		18	16		20		15	GROUP IV
091	20		22		18	23		17		15	
153	18		23		16	19		17		16	
274	22		23		20	14		18		9	
463	22		23		20	23		22		20	
484	18		13		11	21		18		16	
495	23		18		16	21		21		17	
601	14		16		10	17		11		4	
602	22		16		13	14		15		9	
415	24	>	17		16	14		18		12	GROUP V

In this table the SIPs in Group I showed high instructor influence at both times. The four SIPs in Group II showed high instructor influence at the close of the institute but not nine months later. The reason for the loss of significance is due in part to the fact that the SIPs succumbed to the demands of their schools (as shown by the increase in the R_2 coefficients), and in part to the fact that the schools came to define the counseling role more like the experts (as shown by the increase in the R_3 coefficients). The result for Group II in 1960 was that the balance of influence in 1960 could not be ascertained (as indicated by lack of significant difference between R_1 and R_3). The SIPs in Group III seem to show "delayed instructor influence." This effect is true only for SIP 244 and 280, however. The other two SIPs showed significant differences because the schools obviously did not define the counseling role as the SIP anticipated they would. This is evident in the decrease in the R_2 coefficients.

The nine SIPs in Group IV show no significant instructor influence, but not for the same reasons. SIP 463, for example, showed no influence, because his school defined the role much as did the experts. SIP 601, on the other hand, showed no influence because his agreement with the instructors was rather low and approximately equal to that with his school. The one person in Group V is the only SIP who was significantly more influenced by his school than by the institute instructors. After nine months, howevex this influence had dissipated. In brief, in all but one case, wherever the balance of influence could be ascertained the balance was in favor of the institute instructors -- in many cases impressively so.

Summary

The eight weeks of training received by the 28 SIPs in our sample proved to have some differentiating effects and some generalized effects. One of the general effects was a slight increase in knowledge about testing as measured by an objective test (KIT).

In using tests to make decisions about students, half of the group showed decreased dependency on test scores whereas only a third showed slight increases in dependency. The remaining individuals experienced no measurable changes in test use. Further, the eight persons exhibiting this slight increase in test dependency proved to be those who showed an extreme rejection of tests one year following the close of the institute. Analysis suggested that test use was more a function of amount of knowledge about tests than of other kinds of training given during the institute.

In the general area of attitudes toward tests and their usefulness the group proved mildly positive, valuing most the kinds of knowledge which were of immediate and practical use in their work with students and valuing least the more abstract kinds of knowledge about test research and test development.

The effect of institute training upon the SIPs' perception of the ideal counseling role was difficult to evaluate because of changes in the schools themselves. Generally speaking the effect was a salutory one in that the majority of the group showed lastingly high scores on a key which compared their responses to the responses of the institute instructors. Despite the fact that the majority of their schools defined the counseling role very differently than did the institute instructors, analysis revealed that SIPs in the main withstood these alien influences and held to the concepts they had been taught during the institute. Strictly speaking, of course, our data from the Counselor's Role Checklist show merely that the SIPs typically disagreed more frequently with what they perceived their faculties to expect than they did with the institute instructors. However, both on theoretical grounds and on the basis of remarks made to us by SIPs, we believe the SIPs must surely have felt pressures to conform to expectations of the faculty, and the conclusion seems therefore justified that the SIPs maintained beliefs about their role in substantial agreement with what they had been taught even though this allegiance was strained, by disparate expectations of the faculty.

CHAPTER V

THE COUNSELING ROLE

In our study of the counseling role we were primarily interested in learning (1) what behaviors actually were expected of counselors by their schools and (2) what behaviors teachers thought counselors ought to engage in, regardless of what the school itself presently demanded. Our analyses thus centered upon similarities and differences in the "real" and the "ideal" counseling role, and in the stability of faculty members' perceptions of this role over the period of a year's time.

Our data were obtained from three administrations of the 39-item Counselor's Role Checklist;* namely, in the fall of 1959, the spring of 1960, and the fall of 1960. In this Checklist the questions were made concrete for the respondents by relating them specifically to the SIP in their school rather than to counselors-in-general. Each respondent was asked to check every item on the list as to whether the behavior in question was at that time expected of the SIP in that school, and also whether the behavior was appropriate for a counselor in the SIP's position; i.e., whether the behavior ought to be a part of the SIP's duties. We shall begin with an analysis of the "appropriate" role, as perceived by the members of our sample, and turn later to a consideration of the "expected" role.

The Core Role

Those duties believed to be appropriate for a counselor by more than two-thirds of our total sample at all three administrations are presented in Table V-1. They represent with a fair degree of accurary a "core" role that is independent of size or location of school. Of interest is

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*The development of this instrument (see Appendices C, D, and E) is recounted in Chapter III.

Table V-1. Items which more than two-thirds of the total sample at all three administrations of the Counselor's Role Checklist agreed were appropriate duties for the SIP.

	Fall 1959	Spring 1960	Fall 1960
	Percent	Percent	Percent
1. Explain to parents (when they ask) the general meaning of certain of their child's test results and confer with those who come in with problems concerning their children.	94	96	94
2. Counsel students regarding choice of high school subjects, high school curricula, and possible vocations.	92	96	98
3. Advise on grouping students into ability levels and on routing them into various courses of study (college preparatory, vocational, etc.).	86	86	86
4. Assist staff members in deciding which students should be enrolled in certain courses (e.g., algebra vs. general math, chemistry vs. general science, etc.).	82	88	85
5. Notify all students that certain test data have been received and encourage them to come in for counseling regarding them.	81	78	70
6. Conduct group meetings with students to discuss general questions of curriculum and course selection, and how test scores can help to answer those questions.	77	76	71
7. Compile and arrange a file of selected information about students which is freely accessible to all teachers.	74	70	67
8. Invite teachers to group meetings to learn more about the interpretation of tests.	74	70	67
9. Counsel students regarding family and other types of emotional problems.	72	70	71

the fact that all of the items except number 7 portray the counselor as working directly and in most instances individually with parents, students, and teachers. Item 7 involves the counselor in work which directly assists teachers in their individual work with parents and students. The core counseling role is thus ideally defined as a service function.

Duties upon which half or more of our sample agree were not appropriate for a counselor to perform are listed in Table V-2. These, of course, are as definitive of the core role as are the Table V-1 items. The fact that a majority of our sample stated that the counselor should be neither a disciplinarian nor an educated clerk will, we believe, be greeted with feelings of relief and pleasure by members of the counseling profession. The complete list of 39 items and the percent of the sample stating that each was "appropriate" at each administration is given in Appendix O.

Table V-2. Items which at least half of the total sample at all three administrations of the Counselor's Role Checklist agree were not appropriate duties for the SIP.

	Fall 1959 Percent	Spring 1960 Percent	Fall 1960 Percent
1. Be responsible for such things as readmitting students after absences, transferring students to other schools, etc.	78	80	86
2. Act as a first level of referral for disciplinary and truancy problems.	62	73	79
3. Have an extra-curricular club.	56	53	61

The fact that only 9 of the items consistently received a two-thirds agreement on appropriateness and that only 3 received a fifty percent agreement on inappropriateness was quite surprising. Obviously, the counseling role is not a highly structured one so far as school people are concerned. This fact may reflect the flux of new demands for better counseling services in the schools, or it may indicate that guidance counseling is historically too new for a detailed role structure to have developed.

Stability

The lack of agreement on appropriate counseling duties led naturally to the question of stability. To what extent were faculty members consistent over time in their views of the appropriate counseling role? Did they disagree with themselves over time as much as they disagree with each other at a single time? Or were their views relatively stable?

To answer such questions we compared responses to the Checklist for the first and third administrations. The results are presented in Tables V-3 and V-4. Table V-3 shows that there was a significant change in the responses to seven of the items designated as "appropriate." In only one of these items was there an increase in the percentage of respondents so reporting; the remaining six items showed decreased percentages. The item which showed the increase was one of the high consensus behaviors which formed the core counseling role. The item is certainly an innocuous one stating merely that "it is the duty of the counselor to counsel students." It is small wonder that almost 100 percent of the sample agree.

The six items which showed decreased percentages are interesting in that all but item 7 have an authoritarian tone and seem to put the teacher at the mercy of the counselor's initiative -- for example, "select students," "establish conferences," "conduct meetings," "select parents" -- items which stand in marked contrast to the explain-assist-advise tone of the service items in the core role. Whether our respondents were reacting against the tone of the items or against the nature of the duties involved (or to some mixture) is difficult to say.

Table V-4 reports the two items perceived not to be appropriate counseling behaviors which showed significant changes. On both, the respondents moved in the direction of greater consensus. Taken together, Tables V-3 and V-4 indicate that teachers were coming to agree rather widely on what counselors ought not to do, but were growing farther apart on their ideas of what counselors ought to do.

Further analysis revealed that most of the changes reported in Tables V-3 and V-4 stemmed from teachers rather than from counselors or administrators. When the total sample was divided into these three groups (see Table V-5), teachers accounted for nearly all of the changes on the first five items in Table V-3, and for all of the changes on the items in Table V-4.

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Table V-3. Items on which a statistically significant change occurred in the percentage of persons indicating that the duty was appropriate for a school counselor.

	Percentage Fall 1959	 Fall 1960	P*	Direction of change
1. Counsel students regarding choice of high school courses, high school curricula, and possible vocations.	92	98	< .01	increase
2. Make a study of test data and select particular students to be called in for conference.	77	64	< .01	decrease
3. Notify all students that certain test data have been received and encourage them to come in for conference regarding them.	81	70	< .01	decrease
4. Establish regular conferences with individual teachers to discuss actual student cases.	68	56	< .01	decrease
5. Conduct small faculty "case conferences" meetings on particular students in which test and other data are brought into proper perspective.	75	65	< .01	decrease
6. Make a study of test data and select particular parents to be called in for conference.	52	40	< .05	decrease
7. Teach at least one regular subject-matter class (e.g., math, English, etc.).	64	55	< .05	decrease

*Appel, V. Companion nomographs for testing the significance of the difference between uncorrelated percentages. Psychometrika, 1952, 17, 325-327.

NOTE: This test gives an underestimate of the significance but serves to differentiate items showing large changes from items showing small changes.

Counselors, on the other hand, were largely responsible for the changes in items 6 and 7, and administrators exhibited change on items 1 and 4.

__Table V-4__. Items on which a statistically significant change occurred in the percentage of persons indicating that the duty was __inappropriate__ for a school counselor.

	Percentage		P*	Direction of change
	Fall 1959	Fall 1960		
8. Act as a first level of referral for disciplinary and truancy problems.	68	79	<.01	increase
9. Be responsible for such things as readmitting students after absences, transferring students to other schools, etc.	78	86	<.01	increase

__Table V-5__. Changes in judged appropriateness of certain items of the Counselor's Role Checklist, by respondent groups. Changes were computed for fall 1959 to fall 1960, and only those items are listed here which showed a significant change on the part of the total sample of persons.

Item numbered as in Tables V-3 and V-4.	Teachers		Counselors		Administrators	
	P*	Direction	P*	Direction	P*	Direction
Changes in frequency of responses to appropriate items:						
1	.01	incr.			.05	incr.
2	.01	decr.	.05	decr.		
3	.01	decr.				
4	.05	decr.			.05	decr.
5	.05	decr.				
6			.05	decr.		
7			.05	decr.		
Changes in frequency of responses to inappropriate items:						
8	.01	incr.				
9	.01	incr.				

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*Appel, V., op. cit.

Turning from our analysis of what respondents perceive as appropriate for the SIP to an examination of the behaviors they report as "expected" of him, we find much less stability. Table V-6 shows that our sample changed significantly in their responses to ten items of "expected" behaviors, and Table V-7 shows that they changed significantly on seven items of "not expected" behaviors. In other words, when asked to define the ideal counseling role, our respondents were extremely stable on all but nine items. When asked to state the actual or real role of the SIP in their school, they exhibited significant changes on 17, or 44 percent, of the 39 items. This amount of change in the expected duties of the counselor indicates either that the schools made rather extensive changes in their demands upon the SIP, or that teachers became more accurately informed of his duties and corrected, in the fall of 1960, whatever mistakes they had made when they filled out the Checklist in the fall of 1959.

A comparison of the appropriate duties in Table V-3 with the expected duties in Table V-6 shows that not only do all seven items reappear in Table V-6, but also that the direction of change in responses to these items is identical in both tables. This same finding occurs when we compare the items not appropriate in Table V-4 with the not expected items in Table V-7. This one-to-one relationship between changes in appropriate and expected behaviors may mean that teachers generally tended to approve whatever existed in this area (-- or, conceivably, that what they wished would happen was what they came to believe was happening). Alternatively, the parallelism might be interpreted to indicate a halo effect in answering the questionnaire. However, evidence against this interpretation will be given in Chapter IX.

What Ought to Have Been but Wasn't

To learn whether this generally approving attitude held true for all items in all schools we made a detailed comparison of the behaviors checked appropriate and expected in the fall of 1959. For each school we first selected those behaviors which a majority of the faculty said,

Table V-6. Items on which a statistically significant change occurred in the percentage of respondents indicating that the duty was expected of the SIP*

Item	Percentage Fall 1959	 Fall 1960	P	Direction of change
1. Counsel students regarding choice of high school courses, high school curricula, and possible vocations.	87	94	<.01	increase
2. Make a study of test data and select particular students to be called in for conference.	65	50	<.01	decrease
3. Notify all students that certain test data have been received and encourage them to come in for conference regarding them.	72	61	<.01	decrease
4. Establish regular conferences with individual teachers to discuss actual student cases.	46	31	<.01	decrease
5. Conduct small faculty "case conferences" meetings on particular students in which test and other data are brought into proper perspective.	48	35	<.05	decrease
6. Make a study of test data and select particular parents to be called in for conference.	35	20	<.05	decrease
7. Teach at least one regular subject-matter class (e.g., math, English, etc.).	77	61	<.01	decrease
8. Conduct group meetings with students to discuss general questions of curriculum and course selection, and how test scores can help answer those questions.	61	51	<.05	decrease
9. Conduct a study of student needs and use the results to plan the conduct of counseling services.	44	33	<.05	decrease
10. Set up a schedule of required conferences with all students regarding their test results.	50	40	<.05	decrease

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*The first seven items are numbered the same as in Table V-3 for easy reference. The last three items did not meet the criteria for Table V-3.

Table V-7. Items on which a statistically significant change occurred in the percentage of respondents indicating that the duty was not expected of the SIP.

	Percentage			
Item	Fall 1959	Fall 1960	P	Direction of change
1. Be responsible for such things as re-admitting students after absences, transferring students to other schools, etc.	82	90	<.01	increase
2. Establish regular conferences with individual teachers to discuss actual student cases.	36	50	<.01	increase
3. Teach at least one regular subject-matter class (e.g., math, English, etc.).	17	32	<.01	increase
4. Invite teachers to group meetings to learn more about the interpretation of tests.	39	52	<.01	increase
5. Conduct meetings scheduled by authority of the principal in which teachers can learn more about the techniques, purposes, and values of counseling.	48	58	<.05	increase
6. Notify all parents that certain test results have been received and encourage them to come in for conferences.	45	55	<.05	increase
7. Act as a first level of referral for disciplinary and truancy problems.	76	82	<.05	increase

"Yes, the SIP ought to do this." We then noted whether a majority of the same faculty also said, "No, the SIP is not expected to do this." This procedure resulted in a set of counseling behaviors for every school that tended to be regarded as duties which the SIP "ought to perform but doesn't." The items which were so regarded by six or more schools are reported in Table V-8.

It is to be noted, first, that only eight items showed this discrepancy between desire and practice in as many as six schools, and that no discrepant item turned up in more than eleven schools of the 28. Agreement between appropriateness and expectation was the more usual pattern, these eight items being the exceptions. The next point of interest, however, is that these items are very clearly similar in content: without exception they involve improved communication between counselors and teachers about tests, testing, and counseling. There were, of course, other items scattered over schools which did not involve such communication, but none were listed by as many as six schools. We concluded from these results that the need for a better knowledge of guidance and testing was uppermost in the minds of a great many teachers and that this area was the one in which the average school counselor was most often perceived as failing to answer faculty desires.

In connection with the desire on the part of many teachers to know more about guidance and testing, it is interesting to recall some findings from other parts of this report. First, we have seen that the agreement among faculty members both in regard to what was being expected and in regard to what would be ideally appropriate was not high. Few items drew high consensus among the respondents as a whole; in Section II of Appendix K it can be seen that there was only one item in the appropriate role which drew as high as two-thirds consensus from all 28 schools. Second, we shall see in the next section that the degree of consensus with "experts" was low, averaging about 15 items out of 25 on the appropriate role. Third, we shall see in Chapter VI that the mean number of items correct on a test of Knowledge and Interpretation of Tests was little over fifty percent for the total sample. These findings show that faculty expectations about

Table V-8. Counseling duties which a majority of the faculty in six or more schools stated that the SIP ought to perform but did not.

Item	No. of Schools
Invite teachers to group meetings to learn more about the aims, techniques, and values of counseling.	11
Conduct meetings scheduled by authority of the principal in which teachers can learn more about the interpretation of tests.	8
Hold small group faculty meetings to discuss the particular needs of various departments (such as Science, Industrial Arts, Language, etc.) in regard to the kinds of tests that would be useful.	8
Invite teachers to group meetings to learn more about the interpretation of tests.	7
Conduct meetings scheduled by authority of the principal in which teachers can learn more about the techniques, purposes, and values of counseling.	7
Confer with individual teachers regarding the kinds of tests they might need in their own work.	7
Conduct small group faculty meetings to discuss the interpretation and use of tests to help solve problems specific to that group (e.g. science department, language department, etc.).	6
Conduct a general faculty briefing meeting after test data are received and discuss the results and possible uses in general terms.	6

guidance were far from unitary, that opinions about what ought to be done contained much conflict, and that knowledge of testing contained much room for improvement. Furthermore, we shall see in Chapter IX that much of the lack of consensus about the counselor's role was probably due to lack of any opinion at all -- that is, there were large areas of uncertainty of opinion, at least in 1959. Given the existence of these broad fields of vague knowledge and opinion, it is noteworthy that the chief area of dissatisfaction found was a demand to know more about guidance and testing rather than a demand to be left in the bliss of ignorance. More detail on consensus within schools can be found in Section II of Appendix K.

Agreement With Experts

We now turn to an examination of similarities and differences among schools in perceived appropriateness and expectation of the counselor's role. For this analysis we desired some method of combining the items on the Checklist to form a single score which would facilitate inter-school comparisons. The method employed was that of scoring each respondent's answers on the key derived from the responses of the three institute instructors and designated as the "Expert Key."* Application of this 25-item key to the profile of checks made by a respondent provided information about the extent to which the respondent's perceptions of the counseling role agree with the perceptions of the three experts; the number of matching items will be called the Expert Score of the respondent.

Six scores were obtained for every member of our sample; Expert Score on the appropriate role for the fall 1959, spring 1960, and fall 1960 administrations, and Expert Score on the expected role for each of these administrations. To obtain an index for each school we averaged the Expert Scores for all faculty members at each administration. Table V-9 reports these mean indices for the appropriate role. The data show that schools varied greatly both among and within themselves in regard to what they perceived

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*The derivation of the Expert Key is described in Chapter IV.

Table V-9. Mean Expert Scores (agreement with experts) on appropriateness of items in the Counseling Role Checklist, by schools.

School number	Faculty size in fall '59	Fall 1959 Mean	Fall 1959 S.D.	Fall 1959 N	Spring 1960 Mean	Spring 1960 S.D.	Spring 1960 N	Fall 1960 Mean	Fall 1960 S.D.	Fall 1960 N
018	119	14.2	6.4	37	15.0	5.0	39	14.8	5.0	32
091	74	15.4	4.3	27	15.9	4.9	27			
117	65	16.0	4.3	22	13.0	6.7	21			
153	71	16.0	4.7	20	14.7	4.3	21			
177	16	14.1	5.6	15	15.6	6.4	15			
188	56	9.6	6.7	22	13.0	6.0	23	11.1	6.1	20
244	20	14.7	7.1	19	16.3	4.7	18	16.2	7.2	13
257	195	13.3	5.5	69	13.7	5.7	72	12.4	5.6	64
264	40	16.9	4.3	18	16.7	5.7	17	15.2	4.7	16
274	38	14.9	4.9	18	14.0	5.9	22	16.8	4.4	19
280	74	13.5	5.3	25	14.4	4.9	27	15.0	4.1	24
281	32	17.7	2.9	14	17.2	4.0	15			
301	63	13.7	5.2	21	12.0	7.7	22	14.6	5.3	24
343	17	14.8	3.9	13	14.8	4.3	13	14.1	6.4	10
415	23	15.0	7.1	15	12.9	8.6	17	16.6	5.2	14
430	55	15.3	5.3	29	15.7	4.1	30	14.3	5.9	23
463	40	17.7	4.7	15	16.5	6.5	17	17.3	3.9	16
484	23	15.6	5.8	16	16.7	4.8	22	15.8	4.9	18
488	71	14.0	5.6	22	12.4	4.9	21			
495	68	16.6	5.4	25	16.7	4.9	27	15.4	5.3	24
526	22	17.4	4.5	14	16.5	4.5	11			
531	46	15.5	6.2	17	13.7	5.7	16			
538	20	10.5	5.9	15	14.7	5.5	13	14.9	5.0	7
600	28	13.8	6.8	13	13.6	6.1	16	13.9	4.7	15
601	47	14.6	4.2	21	15.9	3.6	21	14.3	3.8	15
602	39	15.9	3.8	14	15.3	4.6	14	14.2	6.1	10
603	34	17.0	3.9	15	16.6	3.7	14	17.9	2.9	10
604	13	15.4	5.5	10	17.5	5.5	8	14.1	4.3	8
ΣN				581			599			382
$\overline{M}$		14.7			14.8			14.6		

NOTE: Those schools having no means or standard deviation in fall 1960 were not given the Counselor's Role Checklist at that time because the SIPs for those schools had dropped out of the study.

as appropriate counseling duties. In the fall of 1959, for example, the range in mean indices was from 9.6 to 17.7, while the intra-school variability ranged from 2.9 to 7.1. Examination of changes in mean scores of schools over time, however, revealed high stability, none of the changes proving significant by the t-test.*

Table V-10 reports the mean indices for the expected role of each of the three administrations. Here again we observe wide inter- and intra-school variability in faculty members' perceptions of what was expected of the SIP. In contrast to the data of Table V-9. changes in Expert Scores on the expected role over time proved significant when the schools were considered as a group. Although no changes were significant for any individual school, the mean Expert Scores of 21 schools out of 28 decreased from fall 1959 to spring 1960. The binomial probability (with p = .5) of this large a proportion is .008, two-tailed. From fall 1959 to fall 1960, 16 means out of 20 decreased, this proportion having a binomial probability of .012. This steady decline is reflected in the total means of 11.5, 10.7, and 10.3 recorded at the bottom of Table V-10.

The relatively low level of initial Expert Scores on the expected role, in combination with the steady and significant movement in the direction of even lower scores, leads one to wonder whether the experts were inaccurate in their views of what was being expected of counselors in the schools. On the other hand, this lack of agreement with the experts could have resulted from the fact that faculty members were themselves unaware of what was expected of the counselor. It will be recalled that the items on the Checklist could be marked "uncertain" by the respondents and that a large amount of uncertainty would appear as lack of agreement in the Expert Score. However, this could hardly account for the steady decline in the Expert Scores, since the frequency of "uncertain" responses stayed about the same over time. An analysis of changes in respondents' "certainty" about the counseling role, along with some associated factors, will be given in Chapter IX.

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*Although the t-test used did not contain a correction term for the correlation scores, changes which might have reached a customary level of significance with the correlation taken into account would not, we believe, have indicated changes of practical importance.

Table V-10. Mean Expert Scores (agreement with experts) on school expectations regarding items in the Counseling Role Checklist, by schools.

School number	Faculty size fall '59	Fall 1959			Spring 1960			Fall 1960		
		Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	N
018	119	12.7	6.3	37	11.0	3.9	39	11.3	4.0	32
091	74	13.2	4.4	27	12.0	5.2	27			
117	65	11.0	4.7	22	9.7	5.0	21			
153	71	13.7	5.1	20	12.7	4.8	21			
177	16	10.2	6.7	15	9.9	5.1	15			
188	56	7.6	6.6	22	8.6	4.5	23	8.0	5.1	20
244	20	14.9	6.2	19	12.0	4.7	18	12.6	5.5	13
257	195	9.9	5.4	69	9.0	4.2	72	8.4	4.4	64
264	40	12.3	5.4	18	10.5	6.3	17	10.0	3.8	16
274	38	13.7	4.7	18	12.4	4.6	22	13.1	5.6	19
280	74	11.5	5.3	25	10.3	4.6	27	10.9	4.2	24
281	32	15.1	3.8	14	12.9	4.3	15			
301	63	8.5	3.8	21	7.9	4.5	22	7.8	4.4	24
343	17	11.2	6.1	13	9.9	4.5	13	11.2	5.0	10
415	23	14.3	7.6	15	11.6	7.8	17	12.4	5.6	14
430	55	11.9	4.7	29	12.5	4.3	30	11.3	4.9	23
463	40	10.8	5.2	15	11.7	6.3	17	10.0	3.4	16
484	23	12.3	6.0	16	12.2	5.4	22	11.6	5.1	18
488	71	12.1	4.6	22	10.0	4.5	21			
495	68	11.2	5.0	25	11.6	3.5	27	10.6	4.3	24
526	22	13.6	5.1	14	12.4	6.5	11			
531	46	8.8	5.4	17	8.8	4.9	16			
538	20	7.3	6.0	15	8.4	6.1	13	10.1	6.5	7
600	28	10.6	7.0	13	11.5	4.4	16	10.7	4.7	15
601	47	8.9	3.8	21	8.6	2.2	21	8.6	2.2	15
602	39	14.2	4.0	14	12.4	4.1	14	13.1	4.7	10
603	34	13.4	4.5	15	11.9	4.6	14	11.9	5.1	10
604	13	11.3	6.9	10	10.1	7.6	8	9.0	8.4	8
ΣN				579			599			382
$\bar{M}$		11.5			10.7			10.3		

The data in Tables V-9 and V-10 reveal that with only one minor exception, the mean Expert Scores on appropriateness for the 28 schools were substantially higher than were the mean expectation scores. Table V-11 reports the differences between these mean scores for the fall 1959 and fall 1960 data. In the fall of 1959 the differences between means ranged from -0.2 to 6.9 with ten schools showing differences significant beyond the .95 level. In the fall of 1960 the differences ranged from 1.1 to 7.3 with eleven proving significant.

Clearly, the tendency in most of the schools in our sample was to agree with the experts more on what the counselor ought to do than on what the counselor was then being expected to do. In some schools the difference of means was large, reaching more than six items out of 25. This discrepancy might be a mere reflection of inaccuracy on the part of the experts. It might also be an indication of the compromises schools make among the various demands on the time of their personnel. In any event, the matter will bear further research.

Finally, it should be noted that Table V-11 is a picture of unavailing aspiration. Where the respondent's perception of the appropriate role for the counselor matched the Expert Key on more items than did his understanding of what that counselor was actually being asked to do, there were obviously items on which the respondent felt that what ought to be done was not being done. Table V-11 shows that such items of dissatisfaction occurred significantly in ten of the 28 schools in 1959 and in eleven of the 20 schools in 1960. Dissatisfaction with the SIP's duties was widespread in 1959 and increased in 1960.

Table V-11. Differences between mean Expert Scores (agreement with experts) on appropriate role and expected role in fall 1959 and fall 1960, by school. Positive difference means greater Expert Score on the appropriate role. Probabilities are two-tailed.

School number	Fall 1959 Difference between means	Fall 1959 t-test P	Fall 1960 Difference between means	Fall 1960 t-test P
018	1.5		3.5	<.01
091	2.2			
117	5.0	<.01		
153	2.3			
177	3.9		*	
188	2.0		3.1	
244	-0.2		3.6	
257	3.4		4.0	<.01
264	4.6	<.01	5.2	<.01
274	1.2		3.7	<.05
280	2.0		4.1	<.01
281	2.6			
301	5.2	<.01	6.8	<.01
343	3.6		2.9	
415	0.7		4.2	
430	3.4	<.05	3.0	
463	6.9	<.01	7.3	<.01
484	3.3		4.2	<.05
488	1.9			
495	5.4	<.01	4.8	<.05
526	3.8	<.05		
531	6.7	<.01		
538	3.2		4.8	
600	3.2		3.2	
601	5.7	<.01	5.7	<.01
602	1.7		1.1	
603	3.6	<.05	6.0	<.01
604	4.1		5.1	

CHAPTER VI

TRAINING, KNOWLEDGE, AND THE USE OF TEST RESULTS

Many kinds of questions can be asked about the use of test results. One can ask, for example, how many teachers go to the files to look up test scores of pupils. Or how much time they spend seeking information of any kind about students. Or how often teachers utilize test information in conferences with parents. Some preliminary answers to these and similar questions were given in Chapter II of our final report on Project 509. But test results have no intrinsic value; their value lies in their helpfulness to the teacher or administrator facing one of the day's decisions. Admitting this, and putting aside for the nonce their potential value, one can ask how useful teachers, administrators, and counselors in today's schools find test results to be. How much do they rely on test results? What other sources of information about students do they prefer?

These questions were explored to some extent in Project 509. In one experiment teachers were asked to make decisions about placing hypothetical students in an accelerated science class. The most frequently preferred pattern in this task was that of giving heaviest weight to information about intelligence and achievement gleaned from objective test scores. Also discernible on the part of some respondents was a tendency to pay primary attention to students' interests. In another experiment teachers were given a forced-choice attitude item concerning confidence in test scores. Fifty-four percent of the teachers selected statement B:

> B. A test score is a valuable piece of information useful in raising important questions in my mind about students,

in preference to either of these alternatives:

> A. A test score is a valuable piece of information which answers many of the questions I have about students.
>
> C. A test score is an interesting piece of technical information, but possesses little or no value for the ongoing activities of the classroom.

These same teachers were also given the task of making decisions about placing hypothetical students in an accelerated science class. A "Test-nontest" score was derived from this task, indicating the teacher's tendency to put relatively greater weight on test information or nontest information in making a decision about accelerated placement. Comparing the Test-nontest score with the attitude preferences, it was found that those teachers choosing Attitude B were significantly more ready to put weight on test information than were teachers choosing the other two attitude-statements. It was further found that teachers with more training in testing, and also those with higher scores on an objective test of knowledge about testing, were more likely to put greater weight on tests in the Test-nontest task than were other teachers. Correspondingly, teachers who obtained higher scores on the objective test of testing chose Attitude B relatively more often than those scoring lower.

These findings obviously make a consistent pattern. The teacher with more training and knowledge about tests was, on the average, a little more ready to accept the evidence of tests in recommending a student for accelerated placement in a simulated situation, and the teacher's attitude toward test scores was quizzical or exploratory rather than overly trusting or overly rejecting.

These earlier findings support the hypothesis that training -- or at least varifiable knowledge -- leads to a more judicious use of test results. While encouraging, however, the results were far from the last word. They would be difficult to apply to practical work. The relation between choice of attitude statement and knowledge was slight even though statistically significant; furthermore, while the relation between knowledge and Test-nontest preference approached a practical degree, the interpretation of the Test-nontest score in regard to "judiciousness" is difficult. Furthermore, the findings rested on one small attitude-item and on one type of simulated decision-situation -- that of accelerated placement in a science class. With the fact in mind that predicted relations were indeed statistically significant, but with the inadequacies of the results also in mind, we felt that we should interpret them as justifying further work along similar lines. Accordingly, this chapter will relate results based on more intensive analyses using similar techniques under the present contract.

A word should be said about the "level of reality" at which we have chosen to work. In studying the use of test results, one could send observers into schools to take notes on actual behaviors of teachers and counselors as they go their daily rounds. This would indeed be the most valid way to obtain such data, and we hope to do this in future work. But it would also be a very expensive method. Since we look upon the present stage of our work as exploratory, providing estimates and guide lines which will make the investment of funds in more expensive methods less risky, we have so far postponed this most realistic but most expensive technique. On the other hand, we have been queried by some of the teachers participating in our study as to why we put them through simulated decision-making tasks when it would be so much simpler merely to ask them what sources of information are most important to them in such decisions. On this question our Project 509 research gave a conclusive answer. There teachers were asked directly what kinds and sources of information were most necessary and important in a decision having to do with accelerated placement. They were then put through the simulated task and their performance was compared with their own judgments about what their performance would be like. The teachers were impressively poor predictors of their own performance.

Eschewing the great expense of the method of direct observation in vivo on the one hand and the likely lack of validity of the method of direct self-report on the other hand, we studied certain aspects of the use of test results by indirect questions and simulated decision situations. This chapter reports on the use of three measures of test use based on such techniques.

Overview

The Project 509 data described above were collected only from teachers. One of our purposes in the present research was to take a closer look at differences among teachers, counselors, and administrators. Hypothesis 1 formalizes this interest.

Hypothesis 1. Counselors differ from teachers and administrators in their views or practices concerning the use of test results.

Three techniques were used to measure tendencies in the use of test results. One was a simulated task in recommending students for an accelerated science class on the basis of given information about the students. Another was a series of three questions about the information the respondent would prefer if he were to advise a student about enrolling in the college preparatory curriculum. The third was a series of simulated information-seeking situations directed toward helping students with their problems. We found that counselors, teachers, and administrators did differ from one another on some of these tasks. However, in every instance, the differences disappeared when training or knowledge was taken into account. In other words, a teacher and a counselor with equal knowledge about testing did not, on the average, differ from each other on any of our measures of test use.

Hypothesis 2. Respondents with more training or knowledge, compared to those with less, are more stable in their ways of using test results.

Some generally-accepted theoretical positions* would seem to imply that under exposure to random influences (or even to a range of differing influences, though not random) a more differentiated, articulated cognitive structure is more stable than a simpler structure. Since we administered one measure of test use in identical fashion at two different times separated by one year, we were able to compare the stability of respondents having more training or knowledge against the stability of those having less. Although the relation was not impressively strong, the hypothesis that training was associated with greater stability was clearly supported by the level of significance of the results.

Hypothesis 3. Respondents with more training or knowledge, compared to those with less, make less extreme use of test results.

Many people feel that tests can be very useful in locating students who should receive special attention, in aiding the counselor to make more accurate judgments about students, and so forth. At the same time, many experts in the field of testing believe that too many persons give dangerously extreme weight to test results, either rejecting them out of hand or taking their infallibility for granted. Most of these experts urge that increased training in the technicalities of testing will reduce the danger of holding such extreme attitudes toward tests. A preliminary attempt to find support for this hypothesis in Project 509 yielded inconclusive results. In the present research, some support for the hypothesis was obtained, but so slight that additional research is clearly needed in which the conditions under which the hypothesis should hold are much more stringently specified.

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*E.g., see Krech, D. and Crutchfield, R. S. Theory and problems of social psychology. New York: McGraw-Hill, 1948, pp. 135-138.

Hypothesis 4. Training in the use of information about students is related to the dimensionality within which the relevant information is cognized.

By dimensionality is meant the number of dimensions which the respondent may use in making discriminations among "pieces" of information; dimensionality is a way of conceptualizing the "differentiation" of the cognitive field. In this sense, Hypothesis 4 is an elucidation of Hypothesis 2. Clear support for the hypothesis was found. Dimensionality was assessed by an adaptation of the unfolding technique of Coombs.*

Hypothesis 5. Anxiety is negatively related to cognitive dimensionality.

The literature contains numerous statements of the hypothesis that anxiety narrows the focus of perception and cognition. We have interpreted this kind of hypothesis to predict that in an anxious state the subject utilizes a simpler cognitive structure (i.e., lesser dimensionality) in responding to incoming information. The hypothesis received reasonable support from our results.

The results bearing upon these hypotheses will be discussed after a brief description of the measures of knowledge and training which were used. The measures of test use will be described as we come to them.

Measures of Knowledge and Training

KIT

Used with interesting results and found to have satisfactory reliability in Project 509, the 60-item test of Knowledge and Interpretation of Tests was used again in the present work. It was described in Chapter III and appears as Appendix A. Distributions of scores on the test of Knowledge and Interpretation of Tests are given in Table VI-1. The column heading "administrators" in this table means assistant principals, deans, and department heads. Principals were not asked to answer the KIT.

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*Coombs, C. H. Theory and methods of social measurement. In L. Festinger and D. Katz (Eds.) Research methods in the behavioral sciences. New York: Dryden, 1953. Pp. 471-535.

Table VI-1. Distributions of KIT scores.

Score	Administrators (except principals) 1959	Teachers 1959	Counselors (not incl. SIPs) 1959	SIPs only 1959	SIPs only 1960
55-59		1			
50-54		1	1	1	
45-49	3	11	11	4	1
40-44	3	21	15	10	4
35-39	5	63	13	9	9
30-34	13	103	9	4	6
25-29	16	88	7		
20-24	9	65	3		
15-19	1	18			
10-14		3			
5- 9					
0- 4					
Total	50	374	59	28	20
Mean	30.3	30.2	37.4	40.1	37.3
S.D.	7.0	7.2	7.4	4.8	4.1

Clearly, counselors did considerably better on the KIT than did others. Analysis of variance showed a difference among the three groups in 1959 significant beyond the .995 level.

The KIT was administered twice only to SIPs who were still in the study during the last interviewing in the fall of 1960. While there was considerable variability over the intervening period of about a year, the mean for the twenty SIPs in 1960 decreased only 1.75 points, remaining well above the 1959 averages for teachers and administrators.

Upper bound courses in testing

A questionnaire item on courses in testing was given at two different times, once in the fall of 1959 and again in the spring of 1960. The purpose was to get some measure of how much exposure the individual had had to formal training in testing technology. Although the questionnaire-item method gave only a rough measure, its cost was a mere fraction of what it would have cost to seek transcripts, evaluate courses, etc.

The two items used were not identical. The 1959 item (see Appendix C, p. 30, item 10) read:

> How much formal training have you had in the areas of testing? (Please count in rough equivalents for workshops, institutes-in-service training, etc.)
>
> More than three courses ___ Two courses ___
> Three courses ___ One course ___
> None ___

The spring 1960 item (see Appendix D, p. 1, item 3) read:

> How much formal training have you had in the technicalities of testing and measurement? Please count in rough equivalents for workshops, institutes, in-service training, etc.
>
> None ___ 0 Two courses ___ 2
> One course ___ 1 Three courses ___ 3
> More than three ___ 4

It can be seen that there was some variability from one item to the next. The changes in the number of courses checked from fall 1959 to spring 1960 are shown in Table VI-2.

Table VI-2. Changes between fall 1959 and spring 1960 in number of courses in testing reported. (Positive change indicates more courses reported in 1960.)

Change	Frequency
3 or 4	8
2	14
1	93
0	250
-1	110
-2	21
-3 or -4	3
Total	499
Mean change	-0.03

Some of the variability could have been due to the fact that the items were slightly different, or to a different effort at recall, or to other factors. Because we wanted a measure of exposure to almost any kind of training which would help the individual to think about testing, we decided to take the larger number of courses given. The resulting figure can be considered an estimate of the upper bound for the number of courses taken.

To remind the reader of this, we shall refer to this measure as "upper bound courses in testing." The distribution of answers is shown in Table VI-3. Collapsing the table to 3 by 3, the chi-square test gives a p-value beyond .001 for the differences among groups.

Table VI-3. Upper bound courses in testing.

No. of courses	Administrators*	Teachers	Counselors	Total
> 3	28	29	28	85
3	29	36	14	79
2	33	110	33	176
1	10	122	8	140
0	1	62	2	65
Total	101	359	85	545
Mean	2.72	1.58	2.68	

*Includes principals, assistant principals, deans, and department heads.

Table VI-3 shows that counselors exceeded teachers (as they also also did in scores on the KIT) in amount of test training. Administrators, while they fell higher than teachers and about the same as counselors in number of courses, were lower than counselors and about the same as teachers in scores on the KIT. Perhaps the courses which principals defined to themselves as "testing" courses did not help them in answering the technical questions on the KIT. Or perhaps the knowledge acquired by counselors was more often maintained by applications in their work than was that acquired by administrators.

Level of education

In the spring 1960 questionnaire (Appendix D, p. 1, items 1 and 2) two items asked the respondent to indicate his last college degree and the total amount of course work taken since that time. The answers were converted to the equivalent in semester hours past the bachelor's degree. The distributions for our three groups are shown in Table VI-4. Counselors and administrators, as would be expected, exceeded teachers in level of education, the difference being about sixteen semester hours in favor of the former two groups.

Table VI-4. Distributions of educational levels.

Code	Educational level	Admin.	Couns.	Teachers
0	No more than bachelor's degree.	1		50
1	Bachelor plus 1 to 12 additional sem. hrs.		1	68
2	Bachelor plus 13 to 24 add. sem. hrs.	4	7	42
3	Master plus zero to 6 add. sem. hrs. or equivalent in course work. (25-36 hrs.)	34	23	123
4	Master plus 7 to 18 add. sem. hrs. or equiv.	26	28	75
5	Master plus 19 to 30 sem. hrs. or equiv.	20	11	18
6	Master plus 31 to 42 sem. hrs. or equiv.	9	9	20
7	Master plus 43 to 54 sem. hrs. or equiv.	5	4	17
8	Doctor or equivalent in course work.	3		
9	Doctor plus more courses or equiv.	3	1	1
	Total	105	84	414
	Mean in semester hours past bachelor	45.9	42.9	28.2
	S.D.	19.6	16.9	21.8

Relations among the measures of knowledge and training

As might be supposed, the relations among the three measures of knowledge and training were all positive, though not strong. Indices of monotonicity* and the associated significance levels are shown in Table VI-5. The index of monotonicity is computed from an *m* by *n* contingency table, it is an extension of Kendall's Tau, and is interpreted similarly to a correlation coefficient, ranging from -1 to +1. It does not, however, require a linear regression for maximum strength.

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*Smith, J. E. K. *On the analysis of contingency tables with ordered classifications*. Lincoln Lab., Massachusetts Institute of Technology, 1956.

Table VI-5. Indices of monotonicity and significance levels for relations between the three pairs of knowledge or training measures.

	Monotonicity index	N	P
KIT and upper-bound courses in testing	.176	479	< .0001
KIT and educational level	.226	445	< .0001
Educational level and upper-bound courses in testing	.332	532	< .0001

The statistical significance of the relations in Table VI-5 gives some confidence in the validity of the measures. Some readers may be taken aback by the weakness of the relation between KIT and courses in testing, but this result is consistent with correlations found between these and further variables in this study.

Results for Hypothesis 1

This section relates our search for support for the hypothesis that counselors differ from teachers or administrators in their views or practices concerning the use of test results.

The T-ACQ Measure

The first test of this hypothesis employed the following three-part questionnaire item (App. D, p. 6 and App. E, p. 6).

> If you had to make an important decision about a student -- for example, advising him to enter or not to enter the college preparatory curriculum -- how sure would you be of the accuracy of your decision in each of the following cases?
>
> a) You have never had the student in your class, but you have looked up his record and have found his intelligence and achievement test scores.
>
> | | | |
> |---|---|---|
> | Very unsure about my advice | ___ | 0 |
> | Rather unsure | ___ | 1 |
> | Fairly sure | ___ | 2 |
> | Almost completely sure | ___ | 3 |
>
> b) You have had the student in your class for one full year, but the student has not been given any intelligence or achievement tests.
>
> Very unsure, etc.

c) You have had the student in your class for one full year, and you also know of his intelligence and achievement test scores.

Very unsure, etc.

We were interested first, in whether test information or personal acquaintance would give the respondent greater confidence in making a decision about a student, and second, in whether both kinds of information would increase the respondent's confidence when taken together. If the respondent expressed more sureness or confidence when given both kinds of information than when given only one, we called this an "additive model;" if confidence did not increase over that reported for one kind of information alone, we called the model "non-additive." Accordingly, the answers to the item could be coded for more confidence in test information alone than in personal acquaintance alone, and for the converse; answers could also be coded for the kind of "composition model" when both kinds of information were presumed given. The names of the various response patterns and the manner of recognizing the patterns are given in Table VI-6 along with the percentages of the total sample of respondents giving each pattern.

Table VI-7 reports the percentages of responses to these several patterns given by our three groups of respondents. Analysis of the frequencies of the additive and non-additive patterns showed no difference among the three groups and no changes from spring to fall of 1960. Either the item was an inadequate index of "composition model," or the respondent groups had similar perceptions of the value of test data in decision making.

Analysis then turned to another way of using the item to indicate relative confidence in test results. The additive-non-additive distinction was ignored and three types of patterns were formed: the "test" response, the "neutral," and the "nontest." This classification of answers, reflecting greater expression of confidence in test information, in neither, or in personal acquaintance, respectively, will hereafter be called the T-ACQ (tests vs acquaintance) variable. The results for the three respondent groups in spring 1960 are shown in Table VI-8. The disproportionality is significant by chi-square beyond the .975 level. The results for fall 1960, not presented here, were almost identical.

Table VI-6. Patterns used in analyzing response to the questionnaire item on test confidence (App. D, p. 6, item 20 and App. E, p. 6, item 16) and distributions for all subjects pooled.

Confidence expressed in responses to parts of item			Name of response pattern		Percent of all subjects	
Part (a): test info. only	Part (b): personal acquaint. only	Part (c): both types of info.	Source of greater confidence	Composition model	Spring 1960	Fall 1960
Higher confidence than in (b)	Lower confidence than in (a)	Same confidence as in (a)	Test	Non-additive	6	7
Higher than in (b)	Lower than in (a)	Higher than others	Test	Additive	9	7
Same as (b) and (c)	Same as (a) and (c)	Same as (a) and (b)	Neutral	Non-additive	7	9
Same as (b)	Same as (a)	Higher than others	Neutral	Additive	35	37
Lower than in (b)	Higher than in (a)	Higher than others	Non-test	Additive	21	19
Lower than in (b)	Higher than in (a)	Same as in (b)	Non-test	Non-additive	19	19
"Very unsure"	"Very unsure"	"Very unsure"	No confidence in judgment		0	0
Not ascertainable in some part or (c) lower than (a) or (b)			NA		3	2
					100	100
				N	607	524

Table VI-7. Distributions of response patterns for the questionnaire item on test confidence. Figures in body of table are percentages.

	Spring 1960				Fall 1960			
Response pattern	Teachers	Counslrs*	Administrs*	All	Teachers	Counslrs*	Administrs*	All
Test, non-additive	4	15	8	6	5	19	8	7
Test, additive	9	8	12	9	7	8	4	6
Neutral, non-additive	6	5	13	7	8	9	10	9
Neutral, additive	35	42	37	37	36	39	45	38
Non-test, additive	25	15	12	21	22	8	19	20
Non-test, non-additive	21	15	18	20	22	17	14	20
Total	100	100	100	100	100	100	100	100
N	404	80	102	586	351	64	96	511

*Counselors in these columns include SIPs. Administrators include principals, assistant principals, deans, and department heads.

Table VI-8. Distribution of T-ACQ response patterns in spring 1960 for the questionnaire item on test confidence. Figures in the body of the table are percentages.

T-ACQ pattern	Teachers	Administrs	Counslrs	All	
Test	12	18	23	15	
Neutral	42	50	48	45	
Acquaintance	46	32	29	40	
Total	100	100	100	100	
N	348	98	79	525	$P < .025$

Although a few more counselors, in absolute numbers, put more confidence in personal acquaintance than in test results, the counselors were relatively more ready to express a preference for test results than were administrators or teachers. One may recall at this point that counselors tended to score higher on our measures of knowledge and training than did teachers. What, one may wonder, is the relation between the T-ACQ pattern and training? Distributing T-ACQ against upper bound courses in testing and holding constant the additive-non-additive classification by the method of Mitra,* the following results were obtained:

Control	N	Chi-square for T-ACQ *vs* courses	df	
Additive	354	11.04	8	
Non-additive	171	21.53	8	
Total	525	32.57	16	$P < .01$

This kind of result -- namely, finding a difference between respondent groups (particularly a difference showing a greater reliance on test results by counselors) accompanied by a relation between training or knowledge and the measure of test use -- will be seen frequently in later pages.

The question which now naturally arises is whether any difference among respondent groups will remain if the level of training or knowledge is held constant. Distributing T-ACQ against respondent group in spring 1960 and holding constant upper bound courses in testing, we have the non-significant result summarized on the following page.

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*Mitra, S. K. Contributions to the statistical analysis of categorical data. North Carolina Institute of Statistics Monograph Series, No. 142, December, 1955, page 64, formula for $H_{12.3}$.

Courses in testing	N	Chi-square for T-ACQ *vs* group	df	
None to two	370	4.09	4	
Three	76	1.83	4	
More than three	79	1.22	4	
Total	525	7.14	12	$P > .20$

In regard to test use as reflected by the T-ACQ patterns, at least, there is no evidence in these results that counselors differed from others except in ways affected by the courses in testing they had taken. These results indicate that a counselor and a teacher of equal training in testing would most probably show about the same preference between test results and personal acquaintance with the student in responding to the T-ACQ questionnaire item.

The T-NT score

Hypothesis 1 was tested with another kind of measure of confidence in tests. A "test-nontest" score (T-NT) was taken from a task performed with simulated cumulative record cards -- the Card Sort task. A high T-NT score indicated a tendency of the respondent to put more weight on test information in making a decision about placing a student in an accelerated science class and relatively less weight on reported opinions of teachers about the student. A score of 56 is neutral: about equal weight placed on each kind of information. The possible range of the score is 24 to 88. The materials for the Card Sort task are shown in Appendix B, along with the method of computing the T-NT score.

The Card Sort was administered in the fall of 1959 and again in the fall of 1960. Because the task was rather arduous, the 28 cards used in 1959 were reduced to 24 in 1960 on the basis of a factor analysis performed on the data from the first administration. Although the same method of computing the T-NT score was used after both administrations, the reduction in cards made the statistically expected score in 1960 about five and one-half points lower than in 1959 because of the four cards used in 1959 but omitted in 1960. For purposes of comparing mean levels in the two administrations, subjects were assigned the score on the card missing in 1960 which they made in the 1959 administration. The statis-

Table VI-9. T-NT scores in 1959 and 1960, using "corrected" scores for 1960 (see text).

	Administrators*	Counselors	Teachers	All subjects
N	89	41	275	405
Mean in 1959	62.2	65.5	56.6	58.7
S.D. in 1959	14.5	11.2	15.1	15.0
Mean in 1960	56.2	61.9	52.6	54.1
S.D. in 1960	12.8	11.2	13.6	13.3
r_{tt}	.486	.412	.498	.505
Standard error of estimating 1960 score from 1959 score	11.2	10.2	11.8	11.5

*Includes principals, ass't principals, deans, and department heads.

Table VI-10. T-NT scores in 1959 and 1960, using "uncorrected" scores for 1960 (see text).

	Administrators*	Counselors	Teachers	All subjects
N	89	41	275	405
Mean in 1959	62.2	65.5	56.6	58.7
S.D. in 1959	14.5	11.2	15.1	15.0
Mean in 1960	53.1	56.3	49.8	51.2
S.D. in 1960	12.2	11.7	13.1	13.0
r_{tt}	.545	.518	.534	.550
Standard error of estimate	10.2	10.0	11.1	10.9

*Includes principals, ass't principals, deans, and department heads.

tics comparing the two administrations with the 1960 administration and the 1960 scores "corrected" in this manner are shown in Table VI-9. The two administrations were also compared without making this correction, and the relevant statistics are shown in Table VI-10. In reading Table VI-10, it should be remembered that the 1960 means are about five and one-half points low, artifically, in comparison with the 1959 scale. Unless otherwise mentioned, the "uncorrected" data as shown in Table VI-10 will hereafter be used.

The coefficients of reliability in Tables VI-9 and VI-10 indicate the stability of faculty members' test behavior over a year's time. By contrast, the reliability of the test as a measure of behavior at a single sitting (as estimated by the Kuder-Richardson formula on a random sample of 100 teachers) was .71. The Kuder-Richardson coefficient shows the test to be a fairly homogenous instrument, especially when one considers that only 14 items contribute to the total score. The coefficient of stability for the total group of .55 (see Table VI-10) when compared to the coefficient of homogeneity of .71 provides evidence that the teachers' decision-making behavior in the Card Sort task was relatively stable.

The difference in the means for all subjects, as shown in Table VI-9, (58.7 - 54.1) was tested for difference from zero by the t-test, using the standard error of the mean for correlated measures. The two-tailed p-value was beyond .001 ($t = 6.57$). The general decline in T-NT scores was moderate: about one-third of the 1960 standard deviation.

The differences among respondent groups shown in Table VI-10 for 1959 were examined by analysis of variance, and also the differences for 1960. The summaries are shown below, where it is to be seen that the differences among group means were statistically significant even though small. As was the case with the T-ACQ measure, the T-NT score also showed differences in test confidence among respondent groups.

Summary of analysis of variance of T-NT scores among administrators, counselors, and teachers in 1959.

	SS	df	MS	F
Means	4,237	2	2,118	$F = 2118/216 = 9.81$
Within	86,854	402	216	$F_{.99}(2,404) = 4.66$
Total	91,091	404		

Summary of analysis of variance of T-NT scores among administrators, counselors, and teachers in 1960.

	SS	df	MS	F
Means	1,949	2	975	F = 975/164 = 5.94
Within	65,990	402	164	$F_{.99}(2,402) = 4.66$
Total	67,939	404		

We saw in Table VI-10 that the T-NT score was different for administrators, counselors, and teachers, both in 1959 and 1960. Counselors scored highest (toward confidence in tests rather than in impressionistic reports from other teachers), then administrators, and lastly teachers. In Table VI-11, we see that the T-NT score was related positively if not strongly, to our three measures of knowledge and training. This leads us to recall that counselors scored higher on the KIT than teachers or administrators (Table VI-1), counselors and administrators had more courses in testing than teachers (Table VI-3), and counselors and administrators had higher educational levels than teachers (Table VI-4).

Table VI-11. Relations between T-NT scores and measures of knowledge and training: mean T-NT scores within categories of the other variable and Smith's monotonicity index for T-NT versus the other variable.

	KIT score categories					Monotonicity index	P for monotonicity
	10-25	26-30	31-35	36-40	41-59		
T-NT means	53.8	56.9	58.3	56.7	64.2	.162	< .0001
N	109	117	101	73	53		

	Upper bound courses in testing					Mono'y	P
	0	1	2	3	> 3		
T-NT means	54.3	55.8	58.2	62.7	62.8	.147	< .0001
N	64	131	162	73	79		

	Codes for educational level (for translation of codes see Table VI-4).						Mono'y	P
	0	1-2	3	4	5-6	7-9		
T-NT means	49.8	52.3	60.4	59.0	63.5	65.5	.216	< .0001
N	42	92	155	112	72	33		

We next looked to see whether being a counselor had an effect on T-NT score beyond the effect of the greater knowledge and training which counselors possessed. For this purpose, respondents were divided into three levels by upper bound number of courses in testing, containing as nearly as possible equal numbers of respondents. The relation between respondent group and T-NT score for 1959 was then tested within each number-of-courses level and the chi-square values summed, as suggested by Mitra.* The results are shown in Table VI-12. A similar procedure was followed with KIT scores as a control, with the result shown in Table VI-13. It seemed unnecessary to go to the same trouble with level of education.

Table VI-12. Relation between respondent group and T-NT score in 1959, holding constant upper bound courses in testing.

Control	N	Chi-square for T-NT vs group	df
0 to 1 courses	195	2.65	4
2 courses	162	10.90	4
3 or more courses	152	5.04	4
Total	509	18.59	12
		P > .09	

Table VI-13. Relation between respondent group and T-NT score in 1959, holding constant KIT score.

Control (KIT)	N	Chi-square for T-NT vs group	df
10-30	227	5.13	4
31-35	101	2.59	4
36-59	125	5.96	4
Total	453	13.68	12
		P > .10	

Tables VI-12 and VI-13 provide no support for a belief that counselors received higher T-NT scores because of factors other than those represented by their greater training and knowledge about testing. In other words, a teacher with above average knowledge or with more courses in testing than average shows up in our tables in exactly the same way as does a counselor with the same number of courses or the same KIT score. According to these data, a counselor is not a "different kind of animal" from a teacher, but is only a teacher who is more likely to have had advanced training in testing. Lest this sentence be misinterpreted, we hasten to point out that it is being made in the present context of T-NT scores, as was a similar remark within the context of the T-ACQ measure. Even so, it is typical thoughout this report that the attitudes and practices which we assessed rarely showed differences between teachers and counselors which could not be accounted for as well or better by dividing the respondents on the basis of a variable such as amount of training.

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*Mitra, S. K., op. cit.

Student problems

A further test of Hypothesis 1 was possible with the Student Problems questionnaires (Appendices C and E). In these questionnaires, hypothetical problems were described and the respondents asked what types of information they would seek in order better to deal with the problems. The respondents were instructed to choose and order three types of information from among the following:

Achievement in school subjects.
Family and home life.
Intelligence.
Fears and worries.
Interests and ambitions.
Personality and character.

For each type of information desired, respondents were also asked to check a source from which they would prefer to obtain the information. The association of a preferred source with a preferred type of information was fairly uniform, and little analysis of these data has been undertaken. Some results are given on page 21 of Appendix J. The analysis in this chapter will be devoted to responses concerning the preferred types of information, as listed just above.

In the fall of 1959, sixteen problems were administered, of which four turned out to have responses distributions almost identical with some of the other problems. These four were dropped from further analysis. The remaining problems were re-numbered from one to twelve as shown in Appendix J, and this numbering will hereafter be used in this report. The preferences of the respondents for the types of information differed significantly among the twelve problems (the manner of test will be discribed later in the chapter). As illustrations, the answers to two of the problems administered in 1959 are tabulated in Table VI-14. It is immediately evident that the respondents placed their first three choices of the six types of information primarily on family, worries, and personality in response to Problem 4, but in Problem 6 primarily on achievement, intelligence, and interests. In other problems, the choices piled up on other combinations of types of information. Tabulations of responses to all of the problems, those administered in 1960 as well as those administered in 1959, can be seen in Appendix M.

Although the pattern of choice differed from problem to problem, it can also be seen in Table VI-14 that the pattern was much the same among teachers, administrators, and counselors. Answers to the other problems showed no greater differences among the three groups than those illustrated in Table VI-14; none were significant by chi-squares. Our hypothesis that counselors would differ from others in their preferences for types of information was resoundingly refuted, and will remain so even after the additional detailed analyses of response patterns which will be described shortly.

This somewhat unexpected finding led us to question the reliability of our measure. One way to examine reliability is to look first for homogeneity. We therefore selected a random sample of 100 teachers and scored each of the twelve problems on each of the six types of information given. The "score" for each type of information was the weighted sum of the choices over problems, thus:

A score of 3 was given to a type of information receiving a first choice.
A score of 2 to a type receiving a second choice.
A score of 1 to a type receiving a third choice.
A score of 0 to a type not chosen.

Kuder-Richardson coefficients of reliability were computed for the scores on each of the six types of information, with the following results:

Achievement	.51
Intelligence	.47
Interest	.25
Family	.42
Worries	.50
Personality	.53

Table VI-14. Choices of types of information in response to two of the "student problems." Figures in body of table are percentages of respondents.

Problem 4: "Doris is a shy, withdrawn girl who is always alone and seems to have no friends whatsoever. Her appearance is entirely presentable and she is in good health. She confides to a teacher that she wishes she knew how to make friends."

Type of information	Choices of teachers			Choices of administrators			Choices of counselors		
	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
Achievement	2	1	4	1	2	5	1	1	5
Intellig'ce	1	2	3		1	2	2	1	
Interests	3	15	18	1	15	23	4	6	19
Family	31	19	33	35	21	26	28	29	28
Worries	29	35	19	30	37	18	27	43	16
Personality	34	28	23	33	24	26	38	20	32
Total	100	100	100	100	100	100	100	100	100
N	383	383	376	100	100	98	86	86	83

Problem 6: "Virginia Smith's parents want their daughter to go on to college, and Virginia herself wants very much to go. However, she has no idea what to major in."

Achievement	15	30	34	26	26	31	8	33	35
Intellig'ce	8	26	24	12	38	14	12	21	30
Interests	62	18	14	51	17	27	59	22	13
Family	10	9	10	6	6	6	15	14	4
Worries	2	4	2	1	1	5	4		6
Personality	3	13	16	4	12	17	2	10	12
Total	100	100	100	100	100	100	100	100	100
N	366	366	363	98	98	97	86	85	81

For a 12-item test, these six scores (with the exception of Interest) provide amazingly reliable information. The coefficients tell us that our respondents have very stable preferences for particular types of information and that they tend to exercise those preferences consistently regardless of wide variations in the nature of the problem with which they are found. This finding argues that the lack of difference in the choices of respondent groups is not due to randomness of choice, but is instead a reliable lack of difference.

In the discussion of the T-ACQ and T-NT measures of test use, we found differences among the three respondent groups, but then found that we could account for the differences in test use by means of differences in knowledge or training. Correspondingly, one might ask whether there were differences in the responses to the Student Problems which were related to knowledge or training. A chi-square analysis of responses to the problems by categories of KIT and also by categories of level of education failed to show any relation. In the case of T-ACQ and T-NT, there were differences among groups where there were differences among categories of knowledge or training. In the case of Student Problems, however, no differences in response were associated with differences in knowledge or training, and there were no differences among groups.

Changes from 1959 to 1960

Three of the 1959 problems were repeated in the 1960 questionnaire (Appendix E). As before, very little difference was evident among the answers of teachers, administrators, and counselors; hence no space will be given to comparisons among these three groups within the 1960 data. To compare responses at the two times, however, Table VI-15 pools all subjects, and shows the percentage responses in 1959 and 1960 to the three problems (9, 10, and 11) administered at both times.

In Table VI-15 it can be seen at a glance that the changes in distributions of preferences over the year's interval were not striking, although the percentage of choices given to particular types of information did here and there change sufficiently to be statistically significant. For example, the tabulation for Problem 9 shows that intelligence received 33 percent of the first choices in 1959, but 49 percent in 1960. For Problem 10, similarly,

Table VI-15. Choices of types of information in 1959 and 1960 to the three "student problems" which were administered at both times: all respondents pooled. Figures in body of table are percentages of respondents.

Problem 9: "George Merwin is a transfer student new to the school...."

Type of information	1959 1st	1959 2nd	1959 3rd	1960 1st	1960 2nd	1960 3rd
Achievement	19	23	12	19	14	7
Intelligence	33	23	13	49	17	11
Interests	4	13	25	5	19	25
Family	9	13	18	15	25	25
Worries	25	15	15	9	17	18
Personality	10	13	17	3	8	14
Total	100	100	100	100	100	100
N	556	555	540	473	470	469

Problem 10: "Kay Johnson is enrolled in the college preparatory...."

Type of information	1959 1st	1959 2nd	1959 3rd	1960 1st	1960 2nd	1960 3rd
Achievement	6	16	18	6	7	12
Intelligence	20	23	19	37	22	18
Interests	46	28	18	38	32	16
Family	21	13	20	11	16	22
Worries	2	3	6	2	5	10
Personality	5	17	19	6	18	22
Total	100	100	100	100	100	100
N	550	550	535	468	468	467

Problem 11: "Andy Wilson causes trouble for every teacher who has him...."

Type of information	1959 1st	1959 2nd	1959 3rd	1960 1st	1960 2nd	1960 3rd
Achievement	8	12	14	4	5	7
Intelligence	14	13	10	20	10	15
Interests	8	18	22	10	23	23
Family	35	19	18	34	27	21
Worries	14	19	17	16	20	17
Personality	21	19	19	16	15	17
Total	100	100	100	100	100	100
N	552	551	540	466	466	464

the percentage of first choices given to intelligence rose from 20 percent to 37 percent.

Changes from 1959 to 1960 were significant with p-values of .025 or beyond when each rank of choice was taken in turn and subjected to chi-square analysis; each of the three chi-square tests was done with a table of two administrations times by six information types. The kinds of information which apparently changed most in preference -- in the sense of contributing most to the chi-square values -- are listed in Table VI-16. Although the general distribution of preferences was not greatly different at the two times (as we saw in Table VI-15) Table VI-16 shows that the changes were probably not random (even aside from the significant chi-square values) since there was some regularity in the changes: increases took place predominately in respect to information about intelligence and family, while decreases occurred chiefly in respect to achievement and personality.

The changes from 1959 to 1960 are reported because of their statistical significance and their somewhat regular pattern over the three problems. It is difficult to interpret them. T-ACQ distributions did not differ significantly from spring 1960 to fall 1960. Reliance on test information in the Card Sort accelerated placement task (T-NT) declined significantly, though only slightly, from fall 1959 to fall 1960. In the Student Problems, there seemed to be an increase in preference (fall 1959 to fall 1960) for information about intelligence (usually, we would suppose, taken from test results) and for information about family (rarely taken from test results).

A check on the design of the Card Sort task

One problem was given in 1960 only. This problem will be called "Problem CS" and is reproduced in Table VI-17. It was given for the purpose of obtaining a check on the validity of the Card Sort task. It will be remembered that in the Card Sort task (as well as in Problem CS) the respondent was asked to make decisions concerning the placement of students in an accelerated science class. On the simulated cumulative record cards provided the respondent, only three types of information were offered: achievement, intelligence, and interests. Even though the decision to offer only these types of information was made after considerable preliminary work and pretesting we felt that an additional check was advisable near the end of the data-gathering period. Table VI-17

Table VI-16. Types of information which increased or decreased in frequency of choice among responses to Problems 9, 10, and 11.

Problem	For 1st choice: Increased	For 1st choice: Decreased	For 2nd choice: Increased	For 2nd choice: Decreased	For 3rd choice: Increased	For 3rd choice: Decreased
9	Intelligence Family	Fears and worries Personality	Family Interests	Achievement Intelligence Personality	Family	Achievement
10	Intelligence	Interests	---	Achievement	Fears and worries	Achievement
11	Intelligence	Achievement Personality	Family	Achievement	Intelligence	Achievement

Table VI-17. Choices of types of information in response to Problem CS, administered only in the fall of 1960. Figures in the body of the table are percentages of respondents.

Problem CS: "At the beginning of the school year the principal asks you whether, in your judgment, Marian Sanders should be placed in the eleventh grade accelerated science class, or in the regular science class taken by the majority of students."

Type of information	Choices of teachers 1st	2nd	3rd	Choices of administrators 1st	2nd	3rd	Choices of counselors 1st	2nd	3rd
Achievement	50	34	14	49	36	13	54	31	16
Intelligence	38	43	17	43	34	20	37	41	17
Interests	11	23	61	8	28	58	8	28	62
Other	1		8		2	9	1		5
Total	100	100	100	100	100	100	100	100	100
N	324	324	324	86	86	86	65	64	64

provides strong evidence that we included in the Card Sort task those types of information most salient for the respondents in respect to the kind of problem presented to them. Although Problem CS offered the respondent three additional types of information which he might have desired in this problem, fewer than one percent of the respondents put first choice on any of the additional types. This result argues that the types of information offered in the Card Sort task covered very well the types of primary relevance for almost all the subjects, even though the subjects might frequently have wished for a greater amount of information.

A dimensional analysis of the responses to Student Problems

When we discovered so little variation in the first-choice responses to the Student Problems, we were not yet ready to admit that teachers and counselors viewed these problems no differently. Accordingly, we undertook an analysis which would go beyond the type of information most preferred and ferret out some differing bases underlying that most preferred type of information; that is, we undertook to look for some differing points of view points of view which might have yielded identical first preferences. Because this type of analysis required a great deal of data from the same subjects, we used only the 1959 data in which responses to twelve problems were available from all subjects.

In the Student Problems questionnaire, it will be remembered, six kinds of information were offered the respondent, and he was asked to choose three, numbering them in order from the most preferred to third in preference among the six. The analysis in this section examines the patterns of response given under these instructions, paying chief attention to their dimensional characteristics.

The analysis for dimension used the ordered choices of respondents. For example, suppose a respondent reads a particular problem and then tells us that the type of information which would help him most would be information type A, the next most useful would be type B, then C, D, E, and F*. We could symbolize this rank order by putting his most preferred type of information at the left of a line, followed in order by the others:

A B C D E F

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*Actually, respondents ordered only three of the six, but this explanation will be clearer if we talk temporarily about complete rank orders.

Suppose next that the respondent reads another problem and tells us that his rank order of preference among the information types is:

C D B A E F.

Now, it may be that in the perception of this respondent these six information types differ among themselves in regard to some one important attribute -- whatever it may be. And it may be that he felt the best kind of information for the first problem was a type high in that attribute (A), but that the most suitable type for the second problem was a type more moderate in that attribute (C). For a third problem, he might feel that he would want a type of information (say F) at an opposite pole from the information he chose for the first problem. Yet he could base all three of his response patterns on a perception that the six types lay along a single dimension (or call it attribute, polarity, factor, as you will). Figure 1 below illustrates how this might be.

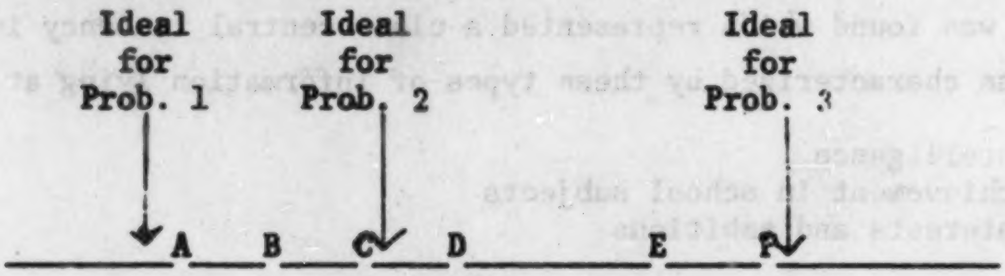

Figure 1

In Figure 1 we see that type C is closest to the respondent's ideal type of information for Problem 2, D next closest, B next, etc., as in the illustrative rank order given earlier. In the same way, his rank order for Problem 3 would be F E D C B A. All three of his responses could "unfold" onto the dimension of Figure 1.

However, it is important to note that not all rank orders (permutatious) of preference could be fitted onto the underlying order A B C D E F illustrated in Figure 1. Although our imaginary respondent's response to Problem 2 -- C D B A E F -- could correspond to ordered distances from the ideal to the information types arranged in the order A B C D E F, many other permutations cannot. To take only one example, the preference order C D A B E F cannot be drawn from the same underlying order.* Thus the data

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***If the respondent's ideal is closest to C, it cannot be closer to A than to B on the order A B C D E F.**

provide a way of ascertaining whether two rank orders can be fitted to the distance relations in the same underlying order of information types. When two or more preference orders can be fitted to the same underlying order, ascertaining the underlying order is called unfolding*.

By the principle of parsimony, one may infer than an individual's perceptions are mediated by only one dimension rather than by many if his preference orders unfold upon a single order of the information types.

As well as comparing the series of preference rankings given by one individual, one can also compare rankings given by different individuals to see whether the individuals might be agreeing on the same dimension -- while at the same time they might or might not be agreeing on their ideal points of preference on that dimension.

The first step in our dimensional analysis was to see how many people could be "unfolded" onto one common dimension, treating each problem separately and also treating separately teachers, counselors, and others. Briefly, a dimension was found which represented a clear central tendency in the data. It was characterized by these types of information lying at one end --

intelligence
achievement in school subjects
interests and ambitions

-- and by these types at the other end --

family and home life
personality and character
fears and worries.

This polarity of information types seems reasonable in view of the exphasis in schools on academic ability. It also reflects our finding in earlier analyses that teachers and others differentiate themselves in regard to reliance on test information; the first three information types are more susceptible to measurement by tests in schools, while the last three are not. Futhermore, the polarity corresponds fairly well to our finding in Project 509 that students believe that their teachers are in possession of the first three types of information but not of the last three.

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*See Coombs, C. H., op. cit. For readers unfamiliar with the unfolding technique, some further explanation is included in Appendix M.

As we shall explain below, this "intelligence-worries dimension" accounted for slightly over half the response patterns of the respondents. It can, perhaps, be thought of as a modal dimension. Though this dimension did not underlie the responses of all the respondents, it was strong enough to show interesting regularities across problems and respondent groups.

Results of unidimensional unfolding

The unfolding analysis was performed separately for the responses of teachers, counselors, and administrators* for each of the twelve problems. The results are shown in Table VI-18. In selecting dimensions, the first was chosen to account for as many respondents as possible, and the second to account for as many of the remaining respondents as possible. Column 2 of the table gives the a priori designation of the type of problem. Columns 4 and 5 give the underlying orders which explain the maximum number of responses. The numerals stand for types of information as follows:

1 achievement in school subjects
2 family and home life
3 intelligence
4 fears and worries
5 interests and ambitions
6 personality and character

When parentheses appear in the table, they indicate that the data did not yield an ordering of the types of information enclosed in the parentheses. Columns 6 and 7 give the percentages of respondents accounted for by the first dimension and by the two dimensions together. Column 8 gives the total number of respondents. The two dimensions should not be taken to be orthogonal, as will be discussed later.

The first notable characteristic of Table VI-18 is the frequency with which types 1, 3, and 5 fall at the beginning of the dimension. Looking only at the first dimension (Column 4 of Table VI-18) we find that for teachers these three types (achievement, intelligence, interests) come first in all twelve problems; for counselors they come first in eleven; and for administrators in nine. Another clear pattern is the frequency with which types 1 and 3 occur adjacent, implying that these two types are seen by the respondents as closely similar to each other. (This result also agrees with our findings in Project 509.) The two types are

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*In this section, "administrators" include principals, assistant principals, deans, department heads, and a few "others" -- chiefly a handful of librarians. Administrators still constitute the bulk of the persons in the category.

Table VI-18. **First and second unfolded dimensions in responses to twelve descriptions of problems concerning students, by teachers, counselors, and others.**

	Problem				% responses accounted for		
Group	Type	No.	First dimension	Second dimension	First dimension	Both	N
1	2	3	4	5	6	7	8
Teachers	Academic	1	3 1 5 2 4 6	3 1 2 5 6 4	27	51	318
		5	3 1 5 6 4 2	1 3 5 6 2 4	41	60	275
		9	5 1 3 2 4 6	2 1 3 4 5 6	30	48	301
	Occupational	2	3 1 5 6 2 4	1 5 2 6 4 3	34	53	313
		6	3 5 1 6 4 2	3 1 5 2 6 4	45	69	300
		10	1 3 5 6 2 4	6 1 5 3 2 4	34	57	299
	Disciplinary	3	3 1 5 2 6 4	3 1 6 2 4 5	41	64	306
		7	3 5 1 6 2 4	3 1 5 2 6 4	36	63	301
		11	1 3 5 4 2 6	3 1 5 2 6 4	22	38	301
	Personality	4	1 3 5 2 4 6	3 1 5 6 2 4	49	69	317
		8	3 1 5 2 6 4	1 3 5 2 4 6	46	69	292
		12	3 5 1 2 4 6	1 3 6 2 4 5	39	55	293
Counselors	Academic	1	5 1 3 2 4 6	1 3 6 5 2 4	27	46	85
		5	3 1 5 6 4 2	1 3 5 6 2 4	50	69	74
		9	5 3 1 4 6 2	5 1 3 6 4 2	32	54	82
	Occupational	2	3 1 5 6 2 4	3 1 2 5 4 6	35	54	84
		6	3 5 1 6 2 4	3 1 5 2 4 6	49	77	79
		10	1 3 5 2 6 4	1 3 6 5 2 4	41	63	78
	Disciplinary	3	3 1 4 2 6 5	3 4 1 2 5 6	30	57	83
		7	5 3 1 6 2 4	3 5 2 4 6 1	38	62	79
		11	1 3 5 6 2 4	1 3 2 5 6 4	30	47	81
	Personality	4	(3 1)5 6 4 2	3 5 4 2 6 1	60	80	83
		8	3 1 5 2 4 6	1 3 5 2 6 4	39	64	76
		12	5 1 3 2 4 6	1 3 6 2 4 5	40	62	82
Administrators	Academic	1	3 1 5 2 6 4	1 2 5 6 4 3	27	46	112
		5	3 1 5 6 4 2	3 1 6 5 2 4	41	71	101
		9	5 1 3 4 6 2	2 3 1 4 6 5	28	56	106
	Occupational	2	3 1 5 6 2 4	(3)2 5 1 6(4)	44	62	117
		6	3 5 1 6 2 4	3 1 5 6 4 2	42	72	109
		10	6 3 5 2 1 4	1 3 5 6 2 4	34	61	104
	Disciplinary	3	3 1 5 2 6 4	3 5 1 2 4 6	46	69	112
		7	3 1 5 6 2 4	3 5 1 2 6 4	38	56	109
		11	1 3 5 2 4 6	3 4 5 2 6 1	32	48	106
	Personality	4	(3 1)5 2 4 6	3 5 4 6 2 1	49	70	114
		8	3 1 2 5 6 4	1 3 5 2 4 6	45	70	102
		12	3 1 2 4 6 5	1 3 4 2 6 5	41	59	106

adjacent in nine problems for teachers, in eleven for counselors, and in ten for others.

Some of the data in Table VI-18 are rearranged in Table VI-19 to make comparisons easier among teachers, counselors, and others. Few differences appear in Table VI-19. Even the percentages of responses accounted for are similar among the three groups of respondents. In general, we can infer that among those persons whose responses could be fitted to a single dimension,

(1) they agreed in almost every problem that intelligence, achievement, and interests belonged toward one pole and the other types toward the other -- they agreed upon an "intelligence-worries" dimension,

(2) they saw intelligence and achievement as very similar for the purposes of these problems, and

(3) respondent groups did not differ from one another to any important degree in the dimension their responses defined nor in their perception of intelligence and achievement as similar.

It is important to emphasize that the above conclusions apply only to a portion of our subjects -- ranging from 22% of teachers in Problem 15 to 60% of counselors in Problem 4 (see Table VI-19). In brief, for each problem and each respondent group a sizeable block of persons was found whose responses would unfold into one dimension (approximately), and the above conclusions apply only to those blocks of persons.

The reader must also keep in mind, in looking at Tables VI-18 and VI-19, that the rank orders given of the types of information are not preference orders; they are the "underlying" orders which could be the basis for the respondents' generation of preference orders. To offer an analogy, two gardeners may differ in the flowers they choose to plant in their gardens. One may prefer large flowers and the other small. Yet they both agree that size is a basis for their preferences among flowers. The preferences of both gardeners would thus unfold onto a rank order in which the flowers were arranged by size. The modal points of first preference in the orders given in Tables VI-18 and VI-19 will be discussed later.

Table VI-19. **First unfolded dimension in responses to twelve descriptions of problems concerning students.**

Prob. No.	Group	First dimension	% responses acc't'd for
1	Teachers	3 1 5 2 4 6	27
	Counselors	5 1 3 2 4 6	27
	Administrators	3 1 5 2 6 4	27
5	Teachers	3 1 5 6 4 2	41
	Counselors	3 1 5 6 4 2	50
	Administrators	3 1 5 6 4 2	41
9	Teachers	5 1 3 2 4 6	30
	Counselors	5 3 1 4 6 2	32
	Administrators	5 1 3 4 6 2	28
2	Teachers	3 1 5 6 2 4	34
	Counselors	3 1 5 6 2 4	35
	Administrators	3 1 5 6 2 4	44
6	Teachers	3 5 1 6 4 2	45
	Counselors	3 5 1 6 2 4	49
	Administrators	3 5 1 6 2 4	42
10	Teachers	1 3 5 6 2 4	34
	Counselors	1 3 5 2 6 4	41
	Administrators	6 3 5 2 1 4	34
3	Teachers	3 1 5 2 6 4	41
	Counselors	3 1 4 2 6 5	30
	Administrators	3 1 5 2 6 4	46
7	Teachers	3 5 1 6 2 4	36
	Counselors	5 3 1 6 2 4	38
	Administrators	3 1 5 6 2 4	38
11	Teachers	1 3 5 4 2 6	22
	Counselors	1 3 5 6 2 4	30
	Administrators	1 3 5 2 4 6	32
4	Teachers	1 3 5 2 4 6	49
	Counselors	(3 1)5 6 4 2	60
	Administrators	(3 1)5 2 4 6	49
8	Teachers	3 1 5 2 6 4	46
	Counselors	3 1 5 2 4 6	39
	Administrators	3 1 2 5 6 4	45
12	Teachers	3 5 1 2 4 6	39
	Counselors	5 1 3 2 4 6	40
	Administrators	3 1 2 4 6 5	41

An approximate intelligence-worries dimension

We have seen in Table VI-18 (Column 4) that the dominant dimension in each problem and respondent group repeated, with impressively few exceptions, a particular pattern: the pattern with types 1, 3, and 5 preceding types 2, 4, and 6. This was interesting enough to encourage us to examine what dimensional tendencies might appear next. Had complete rank orders been obtained instead of orders only on three stimuli, a non-metric factor analysis would have been appropriate. As it was, we had to be satisfied with taking the responses remaining after unfolding as many as possible into one dimension, and proceed to unfold as many as possible onto some other dimension. This is the "second dimension" exhibited in Column 5 of Table VI-18.

The impressive thing about Column 5 is its similarity to Column 4. If a second factor were to be orthogonal to the first, the stimuli at the ends of the first should fall in the middle, or at least together, in the second. This is rare in Table VI-18. The more usual pattern in Column 5 resembles that in Column 4. In Column 5, information types 1, 3, and 5 come first for teachers in six of the twelve problems -- chance expectation would be $(6^2)/6!$ or one problem in 20; for counselors the odd-numbered types come first in four problems; and for administrators, in five. Of all other possible sets of three types which might occur first in Column 5, the nearest competitor is the set 1-3-6, which appears only in two problems for teachers, in three for counselors, and in one for others. Types 1 and 3 are adjacent in ten problems for teachers, in nine for counselors, and in six for others.

Clearly, the second dimensions in Table VI-18 are in most cases far from orthogonal to the first dimension. There seems a strong tendency, stronger it is true on the part of persons accounted for by the first dimension but well above chance frequency on the part of those fitting a second dimension, to place the odd-numbered types at one end of a dimension and the even-numbered types at the other.

Looking at the number of respondents accounted for by the two dimensions taken together, we find the percentage ranging from 33 percent of teachers answering Problem 11 to 80 percent of counselors answering Problem 4. Means for the three respondent groups are near 60 percent. Since the odd-even polarity accounted for so many responses, we decided to postulate an "approximate" dimension specified by the three off types lying at one end of the dimension and the three even types at the other. This approximate dimension would not be a good representation of the frame of reference of all subjects, but it would be a likely approximation for a great many. With such a dimension one could characterize all respondents and not be limited to those subjects fitting precisely one of the dimensions of Table VI-18. With the odd-even approximation, we hoped we might yet see some differences among teachers, counselors, and others.

As a next step, then, every respondent was given an "odd-even" score. This was done by considering the information types to be in two clusters, the odds and the evens, and ignoring the ordering of types within clusters. An individual who chose two odd types and one even type was considered to be not as close to the odd end of the dimension as one who chose all odd types. Further, an individual who chose one even type as his third choice was closer to the odd end than one who chose one even type as his second choice. Using this rationale, eight scale positions were laid out:

	Response pattern		
Position	1st choice	2nd choice	3rd choice
1	O	O	O
2	O	O	E
3	O	E	O
4	E	O	O
5	O	E	E
6	E	O	E
7	E	E	O
8	E	E	E

Assigning every person's response to one of the above positions, means were computed for teachers, counselors, and others for each problem. These means are given in Table VI-20. But as the table shows, our hope of finding differences among respondent groups was dashed -- the similarities among the three respondent groups are still overwhelming. Large differences appear between problems, but only small differences -- very small -- between respondent groups. In short, the situation (problem) seems to make a difference in the kind of information school people want; but the three groups of school people agree closely in their mean preference among kinds of information.

Discussion of the Similarities Among Respondent Groups

It seems clear from Table VI-18 that the intelligence-worries dimension reflects a good part of the differences in response which were obtained. It seems clear from Table VI-20 that the odd-even approximation to the dimension also does a good job of reflecting differences, since wide differences appear from problem to problem and these differences appear within each of the three respondent groups. In other words, the projections upon the intelligence-worries dimension are clearly not random. Nevertheless, it turns out that teachers and counselors do not differ from one another on this dimension in any of the problems.

Table VI-20. Means of respondent groups for twelve Problems on the "odd-even approximation" of the "intelligence-worries" dimension. A score of 1 represents the intelligence pole and a score of 8 the worries pole.

	Problem					
	1	5	9	2	6	10
Teachers	4.04	3.75	4.01	3.32	2.31	3.14
Counselors	4.42	3.64	4.65	3.32	2.35	3.51
Administrators	4.62	3.82	3.87	3.09	2.05	2.88
	3	7	11	4	8	12
Teachers	5.77	6.54	5.47	7.17	5.50	6.56
Counselors	5.78	6.58	5.40	7.40	5.29	6.40
Administrators	5.55	6.48	4.84	7.27	5.35	6.52

Since the intelligence-worries dimension seemed to underlie a good part of the variance, it surprised us that we could ferret out no differences between counselors and teachers. The kind of information desired in dealing with problems of students certainly seems to be a kind of orientation which should distinguish specialists in counseling from classroom teachers if, indeed, the specialty brings with it any way of thinking about students different from that demanded by the usual classroom objectives and by ordinary school policy. Certainly, we hear counseling experts vociferously asserting that counselors must employ a kind of thinking about students different from the kind usually dominant in classroom situations.

It is true that our research has shown some differences between counselors and other respondents. Let us review some of the findings. Apart from differences in training and knowledge of testing, the following differences were found in Project 509:

> Counselors said that principals should have fewer courses in testing than principals or teachers said principals should have.
>
> Their attitude toward the value of tests (on the A-B-C statements mentioned at the beginning of this chapter) was not related to how many courses in testing they had had, while there was a relation within principals and teachers.
>
> The frequency with which they discussed test results with parents or students was not related to the number of courses in testing they had had, whereas there was a relation for principals and for teachers.
>
> Counselors tended to be found in more frequent communication with faculty concerning matters of guidance and counseling, on the average, than were teachers.

These differences are few enough, and when we look at them they seem to be differences largely due to counselors' assignment of duties in their jobs -- such as discussing test results regardless of their training. But what about differences between *counselors and teachers in their effects* upon students, or in their way of thinking about their dealings with students? What have we found in these respects?

In the present chapter, we found a small though significant difference between counselors and others in regard to test confidence (T-ACQ) as measured by the questionnaire item concerning the advice the respondent might give to a student about entering the college preparatory curriculum (Table VI-8). At the same time, we found that the differences among respondent groups could be attributed to differences in training. Similarly, the analysis of T-MT scores showed that differences between counselors and others vanished when training and knowledge were held constant (Tables VI-12 and VI-13). Finally, in the present dimensional analysis of the Student Problems questionnaire, no differences between counselors and others could be found. Granted the sparse sampling of the domain of using information about students which our three methods of assessment (T-ACQ, T-MT, and problems) represent, these findings nevertheless make very dubious the hypothesis that counselors differ from equally-trained others in the way they evaluate and make use of information about students.

Particularly interesting on this point was the Project 509 finding that in schools with relatively more counselors, compared to schools with few or no counselors, there were no differences among students either in their knowledge of how much education is required for their chosen occupations or in their knowledge of the duties those occupations call for. Presumably, we found no differences because the teachers in the schools with fewer counselors were doing for the students just about what the counselors were doing in schools where there were relatively more counselors -- assuming that influences from parents and others were comparable in the two groups of schools. Further, as suggested by other unpublished data from Project 509, teachers and counselors did not differ in the frequency of being named by students as sources of occupational information.

In brief, although counselors differ from others in the kind of preparation they have had for their jobs and in the duties they are assigned in the school, our research shows no evidence, given equal training, that counselors give different weight to test results than do others, no evidence (regardless of training) that counselors differ from others in the dimension which most parsimoniously accounts for their discrimination among kinds of information useful in thinking about students' problems, and no evidence that they differ from others in their preferences for kinds of information suitable to different problems of students.

On the basis of these findings, one is encouraged to adopt an hypothesis which may be fruitful for further research; namely, that the role of the public school teacher encompasses almost all the attitudes and ways of thinking about students to be found in the roles of specialists within the school such as counselors and administrators. Aside from our present findings, there are theoretical reasons for taking this hypothesis seriously. The theoretical position is that entry into an occupation is a process of role acquisition.

Occupations differ in the extent to which they demand that the role become part of the self-concept; correspondingly, they differ in the ease with which the role can be fitted to a personality already highly structured at the time the occupation is entered. The roles of some occupations are simple and quickly learned, requiring only a moderate discipline because they are taken on and shed each day. The machine operator who finds his occupational role onerous can leave it (or most of it) behind him each day at five o'clock. The roles of the professions, however, pervade a great part of the life of the individual. A physician is expected to be compassionate not only during office hours -- in fact, a physician will be shunned if he is not felt to be a compassionate *man*.

The picture of the professional conveyed to the layman consists in large part of the kind of *person* he is. A physician is compassionate, a lawyer is trustworthy, a priest is selfless, a teacher is a loving parent-surrogate. And for most professions, these "public images" must be the "objects" among which the adolescent makes a choice. If the demands of the professional role upon the personality are not the whole matter in selecting or rejecting a particular profession, certainly they are an important part.

Entering a particular profession, then, is not merely an economic decision, nor merely one of "interest" in the technical duties involved; it is also a matter of temperamental compatibility -- a matter of the anticipated satisfaction of personality needs. And remaining in a profession is importantly a matter of finding that these deep-laid needs do indeed find satisfaction. This proposition has been empirically studied by Lasswell as early as 1930.* Further support is given by recent studies of the professions such as those of Ann Roe;** support at the level of choosing college curricula has been provided for Vassar College students by Nevitt Sanford *et al*.*** Many other studies could be cited.

Now, on what evidence do prospective teachers base their belief that they will like doing the things a teacher does? In regard to providing the young person with information, probably no other occupation enjoys such

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*Lasswell, H. D. *Psychopathology and politics*. Chicago: Univ. of Chicago Press, 1930.

**Roe, Anne, *The psychology of occupations*. New York: Wiley, 1956.

***Sanford, N. (Ed.) Personality development during the college years. *J. soc. Issues*, 1956, 12, No. 4.

thorough public relations as does teaching. Beginning at the age of five or six and for years afterward, almost every child in our nation is given almost daily, for hours on end, a continuous demonstration of what teaching is all about. When the young person decides at last to enroll for education courses, he does so with a conception of the teaching role which has a clarity and precision formed during years of observation, with ample opportunity for imagining himself in the role, and ample interaction to enable him to decide whether he finds the opinions and values of teachers compatible with his own.

This is not to say that the youngster's role conception is what readers of this report might like it to be; we are asserting only that it is comparatively clear and highly structured, and that the individual already has clear and detailed anticipations of satisfactions in the teaching role as he has conceived it.

Now, of course, a winnowing process starts. Some candidates find that college courses in education contradict their conceptions of the teaching role. Others enter teaching but discover that the role is not what they had anticipated. The attrition during the first few years is high, but some remain in the profession. Those who remain in the profession must find not too noxious the views and values of their colleagues. They must find not too dull the courses they attend each summer. But among these are some who, while they find the profession of public education generally acceptable, are not wholly at ease in the classroom. For these persons there are specialities available. They can go back to college and learn to be librarians, principals, counselors. Some become so expert in their specialities that they return to the university as professors of their subjects. They then indoctrinate other future librarians, administrators, speech therapists, counselors, and so forth.

The odd thing about this process is that the specialists in the school -- such as counselors -- are drawn almost entirely from the ranks of the teachers. (In fact, our research shows that a good fraction of counselors remain in the same schools where they previously had been teachers.) In few other professions do auxiliary specialists come so frequently from the ranks of the primary occupation. Administrators and personnel managers in a factory are not required to have been on the assembly line. The librarian in a chemical research laboratory is not recruited from among chemists. The vice president of an airline need not have been a flyer. Only in the teaching profession would it be so universally true that a counselor would be required to have been a teacher, and would have been taught by professors who had been teachers -- professors who themselves had been inducted into their professorships by other professors who in turn had been teachers.

Since this circular indoctrination typically begins with the youngster electing the teaching profession on the basis of a role conception modelled on the previous generation of teachers, since the sequence requires some period of active participation in the teaching role, and since the counselor in training is surrounded -- above, below, and on all sides -- by persons who were winnowed by these same selection criteria, it is perhaps small wonder that we failed to find any difference in the ways our teachers and counselors think about working with students.

The personnel manager, the foreman, the vice president -- all these "work with people," as do clergy, school psychologists, and many others. The point is that many such occupations exist, in part, because the specialist is expected to bring a special point of view to the job of working with people. The specialist employs information about people in different ways than do the other people in the organization. He sees problems and solutions which others do not see. He has special ways of getting certain kinds of information which he perceives to be of special value. Such a person is valued, not merely because he helps out with the work to be done, but because he sees work to be done which the others cannot see. If a person can do this, it may be that it is possible both because he has received different training and because he has entered his profession by a different path from the others in the organization -- he has been selected on different criteria. Suffering little children to come unto the teaching role via the last generation's model is, of course, inevitable. But perhaps new thought, new values, new ways of thinking about students might more quickly be introduced into the system by recruiting specialists such as counselors (and perhaps professors) from outside the circle of teachers-who-teach-teachers-who-teach-teachers.

We now turn to the next hypothesis.

Results for Hypothesis 2

As can be seen from the figures for standard error of estimate and for correlation in Tables VI-9 and VI-10, considerable variability occurred between the two administrations of the Cart Sort from which the T-NT scores were taken. The extent of this variability enabled us to investigate one possible condition for its occurrence. It seemed to us likely that many respondents made their judgments in the Card Sort task in a rather impressionistic manner, with little conscious analysis of the problems posed. We took the theoretical position that a more differentiated cognitive structure in regard to types of information about students would make the respondent less susceptible to situational influences at the two times he performed the Card Sort. The hypothesis, in other words, was that respondents with more training or knowledge about guidance or testing, compared to those with less, would show less change in T-NT score from 1959 to 1960.

This is not to say that opinion embedded in a differentiated cognitive structure is always more difficult to change by outside influence than one underlain by a simple cognitive structure. The efficacy of influence in the two cases calls for different methods of attack, and the results are not merely different in degree, but different in kind. We shall return to this point later. Our prediction assumed that respondents would be subjected to a variety of influences during the course of a year, and that the average effect of these influences would be to produce greater variability in T-NT scores for the less knowledgeable respondents, and less variability for the more knowledgeable.

To measure change in T-NT score, the algebraic deviation was computed for each respondent of his 1960 T-NT score from the line of regression (for all respondents) of the 1960 scores on the 1959 scores. The resulting deviation was, then, the positive or negative change of the respondent's score after being corrected for regression effect. Respondents were then divided into groups by means of a knowledge or training measure and the variance of the deviation scores was computed within each group. The results are shown in Table VI-21. Analysis against KIT and against upper bound courses in testing took the predicted direction, but did not reach desirable levels of significance.

Table VI-21. Relation between variance of change in T-NT scores (change corrected for regression) and KIT, upper bound courses in testing, and courses in guidance, counseling, testing, or measurement.

Training or knowledge variable	Group	T-NT		
		Mean change	Variance	
KIT scores:	40-45	2.39	90.1	Tau between KIT and variance in T-NT changes = -.47. P = .136.
N = 355	35-39	-0.73	113.4	
	31-34	0.88	128.8	
	28-30	1.91	141.4	
	24-27	-2.83	115.5	
	10-23	-1.85	127.7	
Upper bound courses in testing:	> 3	0.97	86.2	Tau between courses and variance in T-NT changes = -.60. P = .117.
	3	-1.11	125.3	
N = 404	2	0.45	137.2	
	1	-0.06	120.9	
	0	-1.13	138.6	
Courses in guidance, counseling, testing, or measurement:	5-12	1.55	96.9	Tau between courses and variance in T-NT changes = -.73. P = .028.
	4	.08	128.4	
	3	-1.15	131.4	
N = 278	2	-1.41	106.0	
	1	-2.43	136.9	
	0	-0.59	145.2	

Training experiences other than courses devoted to the technicalities of testing could, of course, provide cognitive structure related to the use of information about students. In another study using the same subjects (Project 939), we had asked respondents how many courses they had taken in "guidance, counseling, testing, or measurement." The lower part of Table VI-21, using these latter data, shows the predicted result at about the 97 percent level of confidence.* It is true that when the variances in T-NT score deviations at the various levels of training or knowledge were tested for homogeneity the result was in every case non-significant; i.e., the test did not reject the hypothesis of homogeneity. But this is mentioned only as of passing interest; the test for homogeneity of variance does not take account of the order in which the variances of the groups fall. In Table VI-21, the order of magnitude of the variances in T-NT change was compared with the order of the groups given by the knowledge or training variable by the use of the tau statistic, as shown.

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*The data from Project 939 on number of courses in guidance, counseling, testing, or measurement were not as "clean" as might be wished. On the basis of our impressions of midwestern teacher-training institutions, it seems inconceivable to us that a teacher with no more education than the master's degree could have more than one or two courses in these areas,

Although the results of Table VI-21 are not strong, they are suggestive. If one were to seek to influence the use of technical information about students, the task would obviously be different in respect to the trained person on the one hand or the untrained on the other. In influencing the trained person, the task is to make alterations in an already well-anchored cognitive structure, within which many of the beliefs may be connected to important ego supports. In respect to the untrained, the task is primarily to provide the concepts, viewpoints, and anchors which will enable a stable cognitive structure to be established. In this context, the extent to which teachers may behave as if they were experts in the use of technical information about students (regardless of specialized training) is an interesting question. Our findings may have been weak because the differences in amount of training were accompanied only by small differences in strength of cognitive structure. Some years of experience in a field is typically observed to imbue people with confidence in their opinions, whether or not they have engaged in any systematic study of the field during those years. Is the teacher of some years' experience who comes to summer school for a first course in guidance to be treated as one who is "untrained" in the use of information about students and who needs to be provided with concepts, or is he one who already has a strong congitive structure, correct or not, which needs renovating? Possible differences of this sort need further research.

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or even that a doctor specializing in counseling would have more than a dozen. Yet some respondents, particularly those somewhat past the master's level, reported numbers of courses in the thirties and forties! Presumably, some respondents told us the number of semester-hours they had had instead of the number of courses. To increase the reliability of the data, we arbitrarily took the stand that it would be very unlikely for the new bachelor to have more than three courses in these areas, or for the new doctor to have more than twelve. Drawing this line across the scatterplot of level of education against number of courses, we dropped out all respondents who reported numbers of courses above this limit. This left 278 out of 354 subjects for the analysis shown in Table VI-21.

Changes in T-NT school means

Considerable variability in school means on T-NT was found in 1959. Consequently, the means were examined again in 1960. The distribution of one year against the other is shown in Table VI-22, in which the "corrected" 1960 scores are again used.

Table VI-22. T-NT school means in 1959 and 1960.

	1959 means						
1960 means	48.0 to 50.9	51.0 to 53.9	54.0 to 56.9	57.0 to 59.9	60.0 to 62.9	63.0 to 65.9	Total
63.0 - 65.9						2	2
60.0 - 62.9				2	1		3
57.0 - 59.9		1	2		4	1	8
54.0 - 56.9		1	4	1			6
51.0 - 53.9		1	2	1	2		6
48.0 - 50.9	2			1			3
Total	2	3	8	5	7	3	28

The product moment correlation between the 1959 and 1960 means was .59. Considering the moderate test-retest correlations found among the individual T-NT scores and the fact that the number of cases entering into each school mean ranged from 6 to 67, this correlation among school means seems surprisingly low. The change in means ranged from -8.30 to 5.92.

Changes in school means were sufficiently varied so that it seemed worth while to test the likelihood that this was a chance result. Taking 28 groups of individuals, one group for each school, we first tested the homogeneity of the variances of individual changes in T-NT score over schools by the method of Box.* The result being non-significant, the differences among mean change in T-NT score over the 28 schools were tested by analysis of variance. The result would enable the hypothesis of no differences among mean changes to be rejected at about the 94 percent level of confidence. The table below summarizes the analysis.

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*Given in Dixon, W. J. & Massey, F. J. Jr. Introduction to statistical analysis. New York: McGraw-Hill, 1951, pp. 90-91.

Summary of analysis of variance of mean changes in T-NT scores among schools, 1959 to 1960.

	SS	df	MS	F
Means.	4,766	27	176.52	$F = 176.52/118.51 = 1.489$
Within	44,677	377	118.51	$F_{.95}(27,378) = 1.518$
Total	49,443	404		$P < .06$

In brief, the schools differed from one another in their mean T-NT changes to such an extent that we can reject the chance hypothesis if the probability of .06 of the chance result is taken as unacceptably small.

This result suggests that not only did individuals change in systematic ways during the course of the year, but schools may have changed also. It will be interesting to see whether changes on the part of schools were related to certain conditions in the schools during the year. In a later chapter, some investigation of this sort will be reported in respect to conditions of communication in the school. Because of pressures of time, however, the analysis of some variables of change, including change in mean T-NT scores, will have to be omitted from this report and left for future work.

Results for Hypothesis 3

One of the hypotheses motivating this research was the belief held by many testing experts that school people trained in the use of tests are less likely than untrained persons to view test results in extreme ways. One test of this hypothesis made use of the questionnaire item asking the respondent to state his confidence in his advice to a student in regard to enrolling in the college preparatory curriculum (see page 75). In terms of this questionnaire item, we should predict that trained respondents would tend to be more sure of their advice when it was based on both kinds of information (test results and personal acquaintance) than when based on either kind alone. In other words, trained persons would more frequently respond with additive response patterns and untrained persons with non-additive patterns. The results, however, did not support this prediction. Additive and non-additive responses were distributed against the KIT and against educational level, and in neither case was a significant relation found. The Mitra method was used, holding constant the T-ACQ response patterns.

A more successful test of the hypothesis was performed with the T-NT scores taken from the 1959 Card Sort. Here the prediction was that the variance in T-NT scores would be greater for lower levels of training and smaller for higher levels. We did not find this relation to hold when variance in T-NT was compared with KIT or with educational level, but we did find a significant relation with upper bound courses in testing. The results are shown in Table VI-23.

When the variances of T-NT scores at various levels of training or knowledge were tested for homogeneity the result was in every case non-significant; again, this is only of passing interest. In the case of the comparison of upper bound courses in testing with T-NT variances, the order of T-NT variance magnitude was compared with number of courses by means of the tau statistic, and the rank-order correlation was found to be significant at the .96 level, as indicated in Table VI-23. In the other comparisons shown in Table VI-23, it can be seen by inspection that the relations are not significant.

The means in Table VI-23 are a re-statement of those in Table VI-11. By all three measures of knowledge or training (which are weakly correlated with each other) more knowledge or training tends to go with a somewhat greater confidence in test results in contrast to other teachers' judgments of the student. Only in terms of number of courses in testing, however, does decreased extremity (variance) of judgement go with a greater amount of training.

These results give some support, though weak, to the hypothesis. In terms of courses in testing, persons with more training tended less frequently to put extreme weight on one kind of information or another -- either on test results or on reports of other teachers about the student's qualities. This conclusion rests on the significant tau between the number of courses and the variances in the T-NT scores. It is to be noted, however, that the variances just mentioned were not greatly different from a practical point of view, ranging from a standard deviation of about 13 to about 17 in a possible score range of 64. It seems doubtful that these findings represent a trend strong enough to be recognizable in school practice through common observation; that is, without the use of special research techniques such as these. These findings do, it should be noted,

__Table VI-23__. Relations between T-NT scores in fall 1959 and KIT, educational level, upper bound courses in testing, and respondent groups.

Training or knowledge variable	Group	T-NT Mean	T-NT Variance	
KIT scores:	37-55	61.1	189.5	
	31-36	58.5	234.5	
	26-30	56.9	178.4	
	10-25	53.8	217.9	
Educational level (see Table 5 for meaning of codes):	5-9	63.6	240.7	
	4	58.6	186.3	
	3	60.5	208.1	
	0-2	51.6	211.6	
Upper bound courses in testing:	> 3	62.8	182.0	Tau between number of courses and variance in T-NT = -.80. P = .042.
	3	62.7	177.6	
	2	58.2	200.5	
	1	55.8	215.5	
	0	54.6	290.3	
Respondent groups:				
	Counselors	65.4	128.2	
	Administrators	62.0	210.8	
	Teachers	56.5	231.9	

receive further support from the Project 509 findings (which used a sample of teachers overlapping with the present sample) that slightly higher KIT scores were received by persons who chose the alternative to an attitude item which stressed the exploratory use of test scores.

The hypothesis is weakened by the lack of relation between variance in T-NT scores and KIT. (A relation between T-NT and educational level would not be close to the spirit of the hypothesis; these results are given only for completeness.) It is further weakened by the lack of relation of knowledge and training measures with the additive or non-additive aspects of the questionnaire item discussed earlier. A still further note of dubiousness should be sounded. The reduced proportion of extreme T-NT scores among respondents with more courses in testing may not represent a tendency toward moderateness of judgment as such, but may represent merely a tendency to stay close to a cultural average. Perhaps the form of the Card Sort task reminded the respondents with more training that a point of view always highly approved in the discussion of individual cases is "it all depends."

The shape of the present findings in regard to the effect of training or knowledge on judiciousness in the use of test results seems to us amply to justify one kind of conclusion. Namely, this hypothesis should not be taken by anybody to be an adequate description of actual training and practice. This is obviously an hypothesis important to the conduct of guidance and the training of guidance counselors, but it seems clear that it will not be easy to find strong support for it. It will no doubt turn out that training makes a difference of practical degree only when certain particular practices in test use are compared with certain particular training programs. If training in the use of tests is to be improved in the sense of having an effect on extremity of judgment in actual practice, it seems inescapable that large-scale and precise research must accompany the effort.

In regard to the incidence of extreme views toward tests results, our data provide a few rough hints concerning the prevalence of extreme judgments within our sample. If we can accept non-additive responses as more extreme than additive, Table VI-7 gives us some comparative figures. Averaging the results for spring and fall 1960, the table shows that 34.5 percent gave non-additive responses and 65.5 percent gave additive responses. However, we cannot say from the responses to this simple questionnaire item just how extreme were the views of the respondents who gave the 34.5 percent of non-additive response patterns.

In the case of the T-NT score, where the neutral point between weighting more heavily the information from test scores (yielding higher T-NT scores) and weighting more heavily the information from teachers' comments (yielding lower T-NT scores) is 56 with a possible range from 24 to 88, some idea of the spread of scores can be got from the standard deviations given in Table VI-9. Another way to look at the data is to note the percentage of respondents falling above and below arbitrary points. Averaging the figures for 1959 and 1960, 13 percent of the respondents fell above a score of 76, and 7 percent fell below a score of 37. These are entirely arbitrary cutting points; the reader might wish to choose his points of "extremity" closer to the neutral point, or farther away.

In terms of these rough measures, the prevalence of extreme judgments does not seem overwhelming. On the other hand, if damage is to be done by inappropriate judgments, one such judgment is too many, and these figures, rough as they are, suggest that persons with extreme opinions about test results, in one direction or another, are not rare.

Results for Hypothesis 4

Training in the use of information about students is related to the dimensionality within which the information is cognized.

A characteristic of the individual's perceptual or cognitive space which captures much attention in current literature* is the "complexity-simplicity" of the frame of reference within which the individual perceives environmental objects. Complexity-simplicity can be conceived as the dimensionality of the cognitive space. By dimensionality we do not refer to the nature or content of the dimensions mediating the response, but only to the sheer *number* of the dimensions used by the individual in discriminating environmental objects.

Let us consider a couple of common notions about training or knowledge. On the one hand, it is widely held that training serves to rule out irrelevancies. By focusing attention upon what is relevant and important, training *restricts* the number of criteria by which matters are judged. On the other hand, a proposition dear to educators is that training is *liberating*; it provides the individual with an enhanced repertoire of criteria from which he can select the most appropriate to guide his judgment. Whereas the untrained individual is more prone to adopt an irrelevant dimension or one given by his mood of the moment, the individual with sufficient training possesses a kit-bag of relevant dimensions and can judiciously select from it dimensions suitable in different situations. From this point of view training *increases* the number of dimensions which, at any given moment, the individual can draw upon.

These two ideas are not contradictory. The first says that the untrained person's criteria or dimensions of judgment depend on his mood of the moment or upon surface irrelevancies in the situation, so that   the count

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*E. g., Bieri, J. Cognitive complexity-simplicity and predictive behavior. *J. abnorm. soc. Psychol.*, 1955, 51, 263-268.

of dimensions used over a series of situations may mount. Although he might react on the basis only of one or very few dimensions in any one situation, his dimensions over many situations would be numerous. A second phase begins when the individual acquires a little knowledge. He then looks for certain relevant and important characteristics no matter what the situation, so that the tally of dimensions he uses over a series of situations is small. Then, with further training, the person comes to recognize more criteria as relevant to each situation, selecting certain ones as more important in some situations and others as more important in others; consequently the dimensionality of his judgments both over situations and in any one situation increases. These ideas would lead one to predict that the number of dimensions likely to be used in a single situation would increase with training. Accumulated over a series of situations, however, dimensionality would first decrease and then increase as knowledge was acquired.

The "unfolding" method for fitting the responses of a number of respondents to an underlying order, described in the section on Hypothesis 1, can be adapted to estimate roughly the dimensional requirements of each respondent. It will be recalled that each respondent was asked to respond to twelve simulated problems. This means that twelve rankings of three types of information out of six were obtained from most respondents. Using these twleve rankings from each respondent, we undertook to unfold them onto an order of the six types which could underlie the individual's twelve responses. A rough index of the dimensionality required by each subject was then obtained by a simple count of how many of the respondent's twelve responses could be fitted to a single order of the six types.

If any one of a teacher's twelve rankings failed to unfold with his others, we knew that at least two dimensions were required to encompass the twelve responses. We then went on to assume that the fewer of the teacher's twelve responses that would unfold together, the higher his dimensionality was likely to be. This would not necessarily be true, of course, but we assumed that it was more likely to be true than not.

To have a numerical index which would index higher dimensionalities with larger numbers, we subtracted the number of mutually-unfolding responses from twelve. In these terms, the obtained scores ranged from nine (high dimensionality) to two (low dimensionality). If a teacher gave an unusable response to more than one problem, he was coded NA and not given a dimensionality score.

The unfolding technique of Coombs, then, gave us a rough index of whether the teacher was using relatively few or relatively more dimensions in thinking about the types of information he would need in dealing with the problems described to him.

Some of the types of information offered the respondent were types typically obtained through the use of tests. This circumstance, together with the fact that training in the use of information about students usually includes training in construction and interpreting tests, persuaded us that for the purpose of our hypothesis measure of knowledge about testing -- the KIT -- would suffice to index the individual's training. Scores on the KIT were distributed against the dimensionality scores to test the hypothesis that increased training is associated with different dimensionalities.

The question arises what kind of relation should be predicted be predicted between our two measures -- dimensionality and training. Can we specify precisely where, within the ranges covered by our measures, dimensionality would increase or decrease? We mentioned earlier that the predictions would be different if we were looking within a single situation or if we were looking at a series of situations. Was answering the Problems Questionnaire a single situation for our subjects, or was it a series of twelve situations? We could hardly know in advance.

Another difficulty in choosing a prediction was the range of the KIT. There was no way of determining in advance whether it extended high enough to reach the hypothesized point where dimensionality would begin to rise. Because of these uncertainties, we could not pick out a precise form of relation to predict. If the questionnaire were a single situation and the range of the KIT were too low, we could expect no relation at all to show up. If the questionnaire were a series of situations and the range of the KIT were moderate, we could expect the dimensionality index to decrease with knowledge. But if the KIT were ample in range, we could expect first a decrease in the dimensionality index and then an increase. We hoped that our instruments were adequate, and adopted the last relation as our Hypothesis 4: Dimensionality in responses to the Problems questionnaire will first decrease and then increase with score on the KIT.

Dividing the KIT scores into six intervals containing as nearly equal numbers of respondents as possible and entering the dimensionality scores for each KIT interval, we obtained the results shown in Table VI-24; males and females are tabulated separately.

The means shown in Table VI-24 are plotted graphically in Figure 2. Both curves dip in the middle with a gratifyingly high level of statistical confidence, and their general shape is replicated for males and females. Our theory suggests that the high dimensionality indices of the low KIT-scores is a consequence of each problem being seen by these persons as having little relation to the others and represents a haphazard hopping from one dimension to another in going from problem to problem, whereas the moderate to high dimensionality of the high KIT-scorers -- so let us flatter ourselves -- is the differentiated cognitive structure of the expert. The relatively low dimensionality of respondents with average knowledge might be called the simple sophomoric world of the semi-educated.

These results fit in nicely with the results of Hypothesis 2: that the trained person shows more stability of viewpoint than the untrained. The theory for Hypothesis 2 argued that the trained person's cognitive field contains many "anchors" or connections tying a given opinion to many other cognitions, goals, self-concepts, and so forth. The present hypothesis argues that the trained person has many ways (dimensions) of discriminating objects, and these ways or dimensions can be conceived as providing the structure through which connections are made to other opinions, goals, etc.

Our earlier recommendation seems reinforced: that in seeking to influence teachers' use of information about students the complexity of the teacher's cognitive structure should be assessed. The task with the "simple" teacher is not to convert him from one "black-and-white" opinion to another. His "conversion" may turn out to be merely the oscillation of instability; furthermore, rational appeals in a technical field such as the use of test results can have little effect on a "simple" structure which has not incorporated the technical concepts. The task with the person of undifferentiated (low dimensionality) cognitions is to provide him with greater complexity -- to provide him first with training in "what it's all about."

Table VI-24. Frequencies of dimensionality scores at successive KIT levels.

Males only:

Dimensionality		KIT scores 14-23	24-26	27-29	30-32	33-36	37-55	Total
High	8	2	4	3		2	3	14
	7	5	8	3	4	8	10	38
	6	10	11	5	7	9	6	48
	5	5	5	7	8	2	5	32
	4		3	4	4	3	2	16
Low	3		2	1	2		4	9
Totals		22	33	23	25	24	30	157
Dimensionality means:		6.2	6.0	5.6	5.3	6.2	6.2	

Females only:

Dimensionality		KIT scores 10-22	23-26	27-29	30-31	32-34	35-46	Total
High	9	1						1
	8	2	5		2	3	1	13
	7	9	5	3	6	5	6	34
	6	3	10	6	7	11	12	49
	5	2	3	8	4	2	4	23
	4	1		2	4	4	5	16
	3			2				2
Low	2				2	1		3
Totals		18	23	21	25	26	28	141
Dimensionality means		6.7	6.5	5.3	5.6	5.9	5.7	

Chi-square tests from tables collapsed to 3 x 3:

	Chi-square	P
Males	11.13	< .025
Females	15.80	< .005

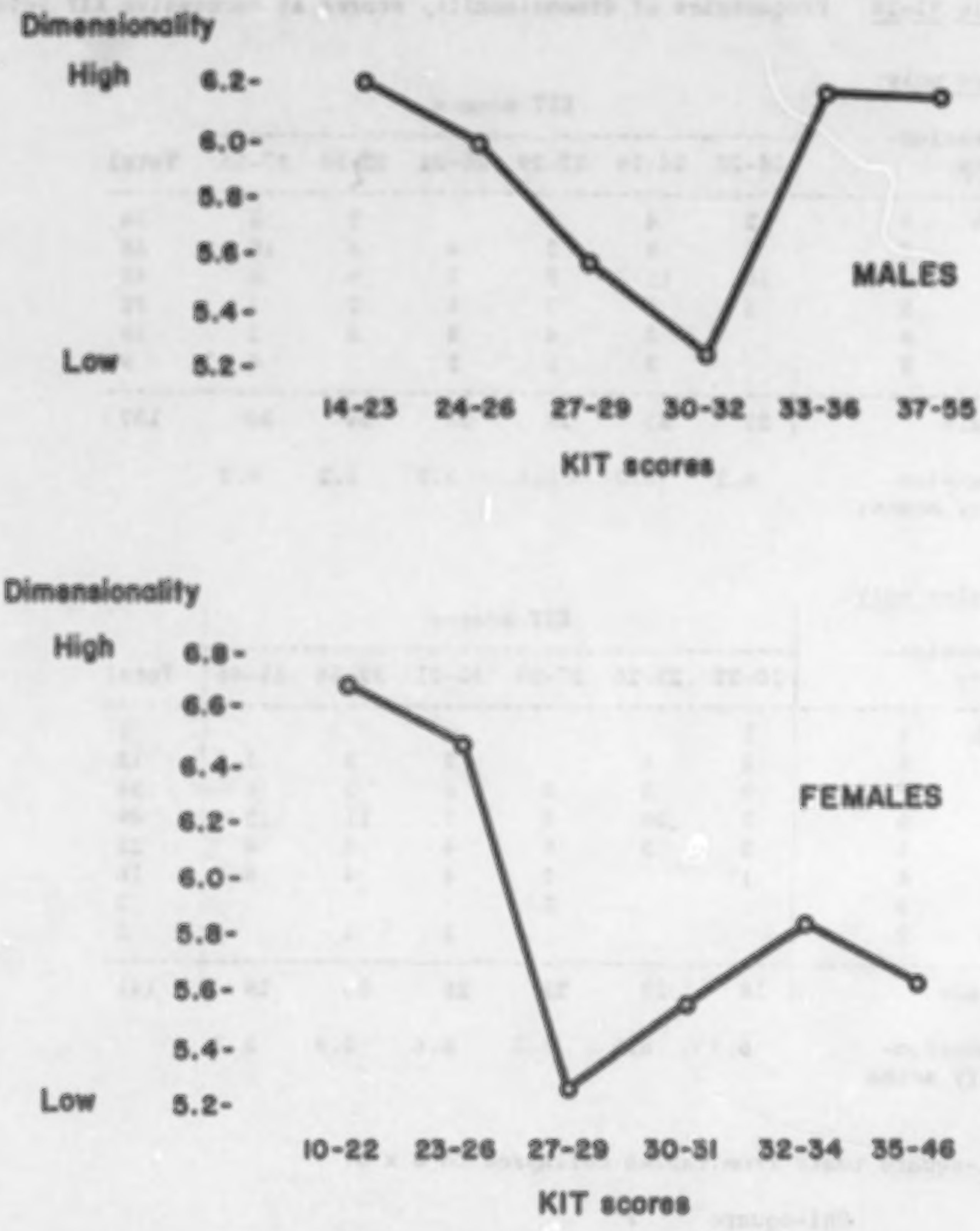

FIGURE 2: Mean dimensionality at successive KIT levels.

The task with the "complex" individual, on the other hand, is precisely that of altering or renovating an already existing system of connections. Communication can quickly be set up with an individual who has already formed beliefs about a variety of matters in a technical field and has related these beliefs to his professional role and his self-concept. The very extensiveness of these connections, however, is the heart of the problem in seeking to influence or re-train such a person. An effective procedure in this case must first ascertain the "important" dimensions -- those most salient for the individual in related matters -- by means of which the individual relates and makes consistent one opinion with another. Although some professors (and therapists) can no doubt ascertain these "important" dimensions of belief intuitively, a technology by which people can be taught the skill in a straightforward way has yet to be worked out.

Results for Hypothesis 5

There is evidence in the literature that anxiety focuses or narrows the aspects of the environment to which the organism responds. Easterbrook* (1959) is particularly cogent on this point. One way in which perception or attention can be focused is by reducing the number of dimensions along which environmental objects are discriminated; and our dimensionality measure is meant to indicate, roughly, just this: that the types of information presented to the teacher in the Problems questionnaire were discriminated along more or fewer dimensions. We should therefore predict that in their responses to the Student Problems teachers with high anxiety will show lower dimensionality than will teachers with low anxiety.

Our measure of anxiety was the "Self-Perception Checklist" which formed part of the 1959 questionnaire (see Appendix C). It was made up of selected items from the Guilford-Zimmerman Temperment Survey** and from Saunders' Personality Research Inventory.*** After the returns were in, these items were analyzed for homogeneity. Thirteen proved to have tetrachoric r's with total score of .40 or better, and these were used to make up the total score on anxiety. This score was merely the count of items answered according to the key for "security" as opposed to anxiety. High scores indicate security and low scores anxiety, the two terms being meant to label a polarity. This short test was admittedly an unreliable instrument and subject to various faults such as social-desirability answers; nevertheless, it was the best compromise we could make at the time with costs of administration, respondent fatigue, etc.

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*Easterbrook, J. A. The effect of emotion on cue utilization and the organization of behavior. Psychol. Rev., 1959, 66, 183-201.

**Guilford, J. P., and Zimmerman, Wayne. Guilford-Zimmerman Temperment Survey. Beverly Hills, Calif.: Sheridan Supply Co., 1949. Used by permission. We used items from the Guilford-Zimmerman which had been selected in 1954 by Jay M. Jackson.

***Saunders, D. R. The personality research inventory. Princeton, New Jersey: Educational Testing Service, 1955.

When we distributed the security scores against dimensionality with all teachers pooled the result was about as near random as one could get. However, since neither of these measures was expressly designed to give a powerful test of the hypothesis we decided to look further for ways of selecting respondents for whom the security and dimensionality measures would be more discriminating.

Other work carried out by Gerald Larson (see Chapter X) suggested that our security measure was more valid for males than for females. Also, as Table VI-24 shows, the KIT was not only associated with differences in dimensionality, but the spread of dimensionality scores was somewhat greater for the middle group of KIT scores. Accordingly, we distributed security against dimensionality for each of the six groups formed by sex and three levels of KIT. The results for males are shown in Table VI-25; the results for females were nowhere significant, and are not reported.

For males, results remained random at low and high levels of KIT but became significant in the middle range. In brief, no subgroup of respondents showed a relation contrary to hypothesis; and one subgroup, selected for sensitivity to our unreliable measures, showed the predicted relation at a good level of confidence. As the center subtable of Table VI-25 shows, relatively more of the secure male teachers exhibited high dimensionality and relatively more of the insecure showed low dimensionality.

These results, like others in this chapter, have implications for in-service training. In technical fields such as dealing with information about students, the highest dimensionality the trainee can muster is

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Table VI-25. Males only: dimensionality *vs* security, within KIT levels.

KIT of 10-25:

Dimensionality		Security		
		Low (0-10)	High (11-13)	Total
High	7-8	10	5	15
	6	7	7	14
Low	3-5	5	5	10
Totals		22	17	39

Chi-square corrected for continuity = 0.32; not significant.

KIT of 26-35:

Dimensionality		Security		
		Low (0-10)	High (11-13)	Total
High	7-8	7	11	18
	6	4	15	19
Low	3-5	20	12	32
Totals		31	38	69

Chi-square = 8.54, $P < .01$ (one tail). Underlined cell frequencies are higher than randomly expected.

KIT of 36-54:

Dimensionality		Security		
		Low (0-10)	High (11-13)	Total
High	7-8	4	10	14
	6	5	5	10
Low	3-5	2	9	11
Totals		11	24	35

Chi-square corrected for continuity = 1.33; not significant.

surely needed to maintain the meaningfulness in the new ideas he is meeting. This means that anxiety should be kept at a minimum. This, in turn, raises questions about the threat of dire punishment which can occur in many in-service training programs and summer courses at colleges: a failing grade, loss of qualification for pay raise, etc.

Security vs KIT

Because both knowledge and anxiety showed some relation to dimensionality we investigated their relation with each other. Only random results were obtained for females, but for males the relation was monotonic. This result is reported in Table VI-26, where it is shown that the more knowledgeable males tended to be more secure than did the less knowledgeable ones. Whether the more secure males were those who took courses in testing and learned more from them or whether they became more secure after acquiring more knowledge about testing is, of course, undetermined.

Table VI-26. Males only: security vs KIT.

KIT scores	Security 0-7	8-9	10-11	12	13	Total
36-54	2	5	11	9	8	35
26-35	10	15	12	21	11	69
10-25	10	7	10	8	4	39
Totals	22	27	33	38	23	143

Critical ratio by Smith's monotonicity test is 2.35; $P < .02$ (two-tailed).

CHAPTER VII

TEST PRACTICES AND ATTITUDES

The most central concern of this research was to learn more about how testing is looked upon in secondary schools -- to assess some attitudes and practices regarding the use of standardized or published tests. In exploring "the state of the art" of using tests in schools, assessing at least some aspects of attitudes and practices seems equivalent to laying the base coat upon the canvass. Conceptually, of course, "attitudes" and "practices" are obverses of the same coin; practices can be evidences of attitude and attitudes preage practices.

Some questions which can be asked about aspects of attitudes and practices in test use are these: how receptive to testing is the faculty in the sense of acceptance or rejection? How frequently do faculty members actually make use of test results in their work? How much knowledge about testing have faculty members acquired? How much weight is given to test results in making certain kinds of decisions? In how much discussion about this general area do faculty members engage? Finally, how are these matters related? Do teachers who feel that testing should be used more widely make more use of test results than do teachers who feel that testing is already over-extended? Do more knowledgeable teachers talk about testing with their colleagues more than less knowledgeable teachers? And so forth.

Earlier portions of this report have already explored some of these questions. Knowledge of faculty members about testing was measured by means of the test of Knowledge and Interpretation of Tests (KIT) and results were given in Chapters IV and VI. On this fairly technical test of 60 items, the average respondent got about half the items right. Counselors averaged about seven points higher than teachers or administrators. Scores ranged from 14 to 58.

We also described in Chapters IV and VI a technique for measuring the weight given to test results in making a decision about placing students in an accelerated science class. That technique was the Card Sort task and the measure taken from it was called the Test-non-Test score on T-NT. The average score for respondents as a whole was near the neutral point. Counselors tended to put somewhat more weight on the student's test scores in this task; teachers leaned toward putting more weight on judgments about the student obtained from colleagues.

The Test Attitude Index

Turning now to the receptiveness of a faculty toward testing, we conceive of this as a willingness or desire for tests to be used more widely as a means of obtaining information about students. The receptive teacher, in other words, would want test information to come to be applied more widely in the work of the school; he would wish a variety of characteristics of students to be assessed by means of tests; he would want more detailed information about the test results to be more easily available to him; he would want parents and the students themselves to profit from the information to be gained from tests. The teacher who rejects tests, however, would take the opposite point of view. With this concept of a receptive attitude toward tests in mind, the items were written which appear as items 4, 8, 10, and 13 of Appendix D and 3, 6, 8, and 12 of Appendix E.* These items comprise twenty statements about possible applications of test results in the work of the school; the respondent was asked to check those which he felt ought to be carried out in his school, without regard to whether they were actually being done at the time. By simply counting the number of statements checked, a score was obtained ranging from zero to 20 which reflected the receptiveness of the respondent's attitude toward the use of tests in his school, in the sense we described above. We called this score the Test Attitude Index or TAI.

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*Items 7(c) and 9(a) of Appendix D were not used in this measure, nor were items 5(c) or 7(a) of Appendix E. The statements used can also be found as Table X-1 of Chapter X, though Table X-1 is written in the form of what was done in the school, while the present attitude measure utilized the form of the statements which asked what ought to be done. Statements 9 and 14 in Table X-1 were not used in the present attitude measure.

The list of twenty statements comprising the TAI was not developed until spring of 1960, but the statements were administered to all respondents in the spring of 1960 and in the following fall. The mean TAI for each school at each of the two times is shown in Table VII-1. The mean of all school means was 12.2 items receiving approval out of 20, and the figure was about the same in fall 1960. The school means, it is obvious, did not differ much among themselves.

Inspection of the two columns of school means in Table VII-1 reveals that in general they were fairly stable over time. In fact, the difference from spring to fall was significant for nine of the schools, and the product moment correlation for the two sets of means was .63. The insignificant change in the mean for all faculties taken as a group is a foreshadowing of findings to be reported in Chapters IX and X. Nevertheless, within this stability of the mass, we shall find both in this chapter and later chapters that differences among particular schools and among individuals were systematically related to other variables.

The Test Discussion Score

All respondents were asked the following question about talking with parents and two other similar questions, one about talking with students and one about talking with other teachers. The three questions were asked in spring 1960 and in fall 1960.*

> In talking with parents about their children, do you discuss the results of standardized tests with them?
>
> Frequently____ 3   Rarely____ 1
>
> Sometimes ____ 2   Never ____ 0

The answers to these items were weighted as in the preceding example and the weights from the three questions summed to obtain a total score for discussing test results with others. We called this score the Test Discussion Score or TDS. It could range from zero to 9, a higher score indicating a perception on the part of the respondent that he more fre-

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*See items 11, 14, and 18 in Appendix D and 9, 12, and 15 in Appendix E.

Table VII-1. Test attitude index (TAI) mean scores for all schools in the spring of 1960 and the fall of 1960.

School	Spring 1960			Fall 1960		
	N	Mean	S.D.	N	Mean	S.D.
463	18	13.9	2.3	17	13.5	2.6
018	40	13.5	2.8	32	14.2	2.1
117	22	13.5	2.4	20	13.5	2.4
484	23	13.3	2.9	18	13.1	2.8
495	28	13.3	1.1	25	12.4	4.0
281	16	13.1	3.0	12	12.6	2.8
153	21	13.0	1.2	18	13.2	3.2
274	23	13.0	2.6	20	14.0	1.6
415	18	12.6	2.3	15	13.6	2.1
091	27	12.5	2.7	23	13.1	2.8
177	16	12.4	2.7	10	12.9	2.5
301	23	12.4	2.2	25	12.0	3.3
343	14	12.4	2.8	11	11.4	3.7
602	15	12.3	1.1	11	11.1	3.2
603	15	12.3	2.3	11	13.2	3.1
280	28	12.2	2.6	23	12.1	2.0
604	10	12.2	1.5	8	10.9	3.1
488	22	11.9	2.6	21	12.0	3.2
531	17	11.9	2.7	13	13.4	2.4
188	24	11.7	2.1	21	11.0	2.5
600	17	11.5	1.1	15	11.8	3.4
526	12	11.4	3.0	13	11.0	3.3
244	18	11.2	2.1	12	11.3	2.4
257	71	11.2	2.5	65	11.5	2.8
264	18	11.1	2.3	17	13.2	2.5
538	14	11.1	1.1	8	12.5	2.4
430	31	10.8	2.8	24	11.4	3.0
601	22	10.2	2.3	14	11.1	2.5
Total	623			522		
$\bar{M}$		12.2			12.4	

quently discussed test results with students, parents, or other teachers, or all of them.

The TAI measured feelings on the part of the respondent about what he would like to see happen in his school in regard to the application of test and dissemination of their results. It asked the respondent what he thought ought to be done. It reflected acceptance-rejection or approach-avoidance tendencies and, in this sense, was close to the common meaning of "attitude." The TDS, on the other hand, was less free of reality pressure from the immediate situation. It did not ask the respondent what he would like to do, but rather what he did do. The TDS, accordingly, was much closer to a report of actual practice than was the TAI. However, the TDS no doubt was considerably affected by what the respondent saw himself ideally doing. The items, as in the above illustration, asked for a report of actions which would be impossible to remember in detail, and likewise impossible to characterize adequately by such rough categories as "frequently," "sometimes," etc. The TDS may be considered to be roughly halfway between an index of attitude in the sense of a readiness on the one side and objective evidence of practices in being, on the other.

The school means in spring and fall of 1960 are given in Table VII-2. In terms of the total possible range of the score, school means on the TDS seem somewhat more variable than the TAI means. The school means on the two scores were very similar, however, in stability. The mean of the school means on the TDS was close to the middle point of the scale in spring 1960 and was almost exactly that in fall 1960. No school showed a statistically significant change, and the correlation of the school means between the two times was .78.

Guidance Communication

We now turn to a measure of communication about the general area of guidance and testing -- a measure not taken solely from a self-report, but one verified by other persons in the school. In fall 1959, a complex questionnaire on the communication links in the school was administered to small groups of respondents by interviewers working in pairs. The questionnaire asked the respondents how frequently they conversed with every other person in the school and about what topics. The assessment of each

Table VII-2. Test discussion score (TDS) means for all schools in the spring of 1960 and the fall of 1960.

	Spring 1960			Fall 1960		
School	N	Mean	S.D.	N	Mean	S.D.
531	17	5.8	2.6	13	6.3	2.8
018	40	5.6	2.7	33	5.5	2.9
301	23	5.5	2.1	25	4.6	2.8
280	28	5.3	3.1	25	5.3	3.2
415	18	5.3	2.4	15	5.5	2.1
274	23	5.2	3.0	20	4.5	2.8
603	15	5.1	2.6	11	4.9	2.4
257	71	5.0	2.2	65	4.6	2.3
463	18	5.0	3.0	17	4.4	2.8
488	22	4.9	2.3	21	4.6	2.8
091	27	4.8	2.8	24	4.8	2.8
117	22	4.7	3.1	21	4.8	3.1
153	21	4.7	3.1	18	5.2	2.5
188	24	4.7	2.2	21	4.4	2.1
430	31	4.7	2.4	24	4.3	2.7
264	18	4.6	2.2	17	5.2	2.4
602	15	4.6	2.7	11	4.1	2.7
526	12	4.5	2.2	14	3.3	2.2
484	23	4.4	1.6	19	3.9	2.1
601	22	4.4	2.6	16	4.4	2.5
600	17	4.2	1.7	24	4.0	2.8
343	14	4.1	2.1	11	3.4	3.0
495	28	3.9	2.9	25	4.9	3.0
604	10	3.6	2.6	9	3.4	2.3
281	16	3.6	2.4	12	3.4	2.4
538	14	3.4	3.1	8	3.9	3.6
177	16	3.0	1.7	11	3.1	2.1
244	19	3.0	2.3	14	3.6	2.4
Total	612			544		
$\overline{M}$		4.7			4.5	

person's communication link with each of the others was based upon the compared reports of the two persons involved. The final coding given to the communication between each pair of persons represented the approximate number of conversations per week the pair held about guidance and testing. Each person, in other words, was assigned a number in respect to every other person, telling roughly how many conversations he held per week with the other person. Each link with another person was finally coded zero through 2, code 2 meaning two conversations per week or more.

This has been a very quick description of the coding of communication links. A complete description of the method will be given in Chapter VIII, where a more complicated use is made of the communication data than is needed here. For the purposes of this chapter, data on each person's communication with others was employed quite simply: the codes each person was given in respect to others were summed over all the others. The result was a score which indicated the equivalent number of persons with whom the respondent conversed at least once a week about guidance and testing. We called this the Guidance Communication Score, or GCS. The GCS is more a measure of practice than of attitude and is reasonably objective in that the final score was taken not only from the individual with whom it was associated, but was corroborated by all of the other persons involved.

The mean Guidance Communication Scores for schools are given in Table VII-3, along with the increases in means from spring to fall. This table, in contrast to Tables VII-1 and 2, shows clear evidence that changes took place. Furthermore, although schools varied in their mean increases and decreases, there was a general rise in the number of persons with whom guidance conversations were held. Of the eleven schools with significant changes in mean, ten showed increases. The correlation between scores on the two times over persons was only .46. In Chapter IX some discussion is given to the possibility that our research in these schools stimulated interest in matters of guidance and testing and therefore increased discussion among the faculty. If this is so, it is interesting that the GCS measure shows a general expansion of communication within the faculty while the perception of discussion of test results with teachers, parents, and students (Table VII-2) shows no overall change.

Table VII-3. Guidance conversation score (GCS) means for all schools in the fall of 1959 and the fall of 1960.

School No.	Fall 1959			Fall 1960				
	N	Mean	S.D.	N	Mean	S.D.	Increase	p*
018	45	18.3	14.2	33	17.3	7.7	-1.0	
488	27	17.3	8.4	21	14.4	6.5	-2.9	
153	27	17.0	8.7	17	16.5	6.4	- .6	
602	24	16.5	6.7	14	12.5	2.9	-4.0	<.02
280	29	15.7	9.2	24	22.5	7.7	6.8	<.001
274	23	15.2	7.5	20	16.7	5.2	1.5	
531	18	14.7	6.2	13	14.1	4.3	- .6	
117	26	13.9	6.8	21	12.0	6.5	-1.9	
091	26	12.9	6.3	24	13.2	7.8	.3	
495	33	12.3	8.0	30	18.4	10.1	6.1	<.001
264	20	12.2	7.6	18	12.0	5.4	- .2	
600	27	12.0	8.2	18	11.6	4.0	- .4	
430	31	11.7	7.9	26	14.9	5.2	3.2	<.02
301	32	11.7	5.2	28	15.9	6.2	4.2	<.001
257	77	11.4	10.1	65	23.6	13.8	12.2	<.001
526	20	11.3	8.3	17	15.5	5.7	4.2	<.05
601	23	11.2	6.9	17	11.8	4.8	.6	
188	27	11.0	7.9	23	13.0	8.1	2.0	
281	16	10.9	6.4	12	9.2	4.2	-1.7	
484	23	10.8	7.0	19	14.7	5.8	3.9	<.02
603	17	10.1	4.6	12	16.5	3.1	6.4	<.001
463	21	9.4	5.9	18	11.1	3.9	.7	
415	21	9.3	5.2	16	17.2	5.9	7.8	<.001
604	12	8.7	4.8	9	6.6	1.5	-2.1	
538	17	8.7	4.5	9	7.5	3.5	-1.2	
244	20	7.6	4.3	13	10.0	3.8	2.4	
343	16	7.3	4.9	11	8.0	3.6	.7	
177	16	6.0	3.7	11	8.1	1.6	2.2	<.05
Total	713	12.5	8.4	559	15.3	9.6	2.9	<.001

* The standard error of the mean difference used in the t-test contained the term for the correlation between the two times. Probabilities not shown were greater than .05, two-tailed. Where there is a discrepancy between the increase shown and the two corresponding means, it is due to rounding error.

Relations among Knowledge, Attitudes, and Practices

We have described measures of five variables: (1) the KIT, a measure of technical knowledge about testing, (2) the TAI, a measure of readiness to accept a wider use of test results, (3) the TDS, measuring the respondent's perception of how frequently he employs test results in discussions with students, parents, and other teachers, (4) the T-NT, a measure of the respondent's tendency to rely on test results in making a placement decision, and (5) the GCS, an estimate of the number of "equivalent persons" with whom the respondent discussed guidance and testing at least once a week. Our hypothesis for this chapter is not very precise, but it is basic: namely, that all of these measures are positively related. Although the stimuli, overt and covert, upon which these measures rest obviously overlap from measure to measure, there are also important differences among the measures which make their positive association far from a foregone conclusion. For example, the TAI indexes some things the respondent might like to see done in the school, while the GCS measures the amount of time the respondent spends talking about such things as what he would like to see done. There is nothing to prevent an individual spending a lot of time talking against the wider use of tests. Yet we are predicting in this example that the individual who spends a lot of time talking about guidance and testing is likely to be one who is in favor of wider use of test results.

The relations among the five variables are summarized in Table VII-4. All relations were significant and positive. This table gives only the significance levels, but the distributions of each variable against each other are given in Tables VII-5 through VII-13 except the distribution of KIT against T-NT; this latter relation was displayed in Chapter VI. Tables VI-11 and VI-21.

Table VII-4. Significance levels of the relations among measuresof attitude and practice concerning the use of tests. All relations were positive; significance was computed by chi-square except KIT vs T-NT, for which see Table VI-11.

	KIT	TAI	TDS	T-NT
TAI	.999			
TDS	.9999	.999		
T-NT	.9999	.995	.9999	
GCS	.9999	.999	.9999	.98

Table VII-5. Percent of respondents in certain KIT categories receiving certain TAI scores in spring 1960. Underlined percentages are greater than would be expected from marginal totals.

	TAI				
KIT	0-10	11-12	13-14	15-20	Total
36-54	16	24	31	29	100
26-35	29	26	31	14	100
10-25	39	26	22	13	100
N	137	129	145	91	502

Chi-square = 28.95

Chi-square for 6 df at .999 level = 22.46

P <.001

Table VII-6. Percent of respondents in certain KIT categories receiving certain TDS scores in spring 1960.

	TDS			
KIT	0-3	4-6	7-9	Total
36-54	22	35	43	100
26-35	42	43	15	100
10-25	47	46	7	100
N	186	207	109	502

Chi-square = 66.06

Chi-square for 4 df at .999 level = 18.46

P <.001

Table VII-7. Percent of respondents in certain TDS categories in spring 1960 receiving certain TAI scores in 1960.

	TAI				
TDS	0-10	11-12	13-14	15-20	Total
7-9	15	21	30	34	100
4-6	32	24	28	16	100
0-3	29	30	30	11	100
N	137	129	145	91	502

Chi-square = 31.64

Chi-square for 6 df at .999 level = 22.46

P <.001

Table VII-8. Percent of respondents in certain T-NT categories in fall 1960 receiving certain TAI scores in fall 1960. (Note: The relation for fall 1959 T-NT and spring TAI, although in the same direction, did not reach the .90 level.)

	TAI				
T-NT	0-10	11-12	13-14	15-20	Total
66-88	16	25	18	41	100
57-65	23	22	37	18	100
49-56	20	18	38	24	100
40-48	26	27	26	21	100
20-39	29	25	18	28	100
N	119	121	140	133	513

Chi-square = 30.85

Chi-square for 12 df at .995 level = 28.30

P <.005

Table VII-9. Percent of respondents in certain T-NT categories in fall 1959 receiving certain TDS scores in spring 1960.

	TDS			
T-NT	0-3	4-6	7-9	Total
74-88	15	50	35	100
64-73	26	47	27	100
56-63	40	39	21	100
45-55	35	43	22	100
24-44	58	34	8	100
N	186	222	117	525

Chi-square = 47.62

Chi-square for 8 df at .999 level = 26.12

P <.0001

Table VII-10. Percent of respondents in certain KIT categories receiving certain GCS scores in fall 1959.

	GCS			
KIT	0-8	9-14	15-65	Total
36-54	24	34	42	100
26-35	40	34	26	100
10-25	46	39	15	100
N	197	188	148	533

Chi-square = 30.69

Chi-square for 4 df at .999 level = 18.46

P <.0001

Table VII-11. Percent of respondents in certain TAI categories in spring 1960 receiving certain GCS scores in fall 1959.

	GCS			
TAI	0-8	9-14	15-65	Total
14-19	25	32	43	100
11-13	36	37	27	100
0-10	44	33	23	100
N	210	211	191	612

Chi-square = 24.29

Chi-square for 4 df at .999 level = 18.46

P <.001

Table VII-12. Percent of respondents in certain TDS categories in spring 1960 receiving certain GCS scores in fall 1959.

	GCS			
TDS	0-8	9-14	15-65	Total
7-9	9	22	69	100
4-6	34	41	25	100
0-3	53	35	12	100
N	210	212	191	613

Chi-square = 153.44

Chi-square for 4 df at .999 level = 18.46

P <.0001

Table VII-13. Percent of respondents in certain T-NT categories in fall 1959 receiving certain GCS scores in fall 1959.

	GCS			
T-NT	0-8	9-14	15-65	Total
65-88	32	31	37	100
52-64	35	40	25	100
10-51	41	36	23	100
N	199	197	160	556

Chi-square = 12.64

Chi-square for 4 df at .98 level = 11.67

P <.02

The above tables, it will be noticed, have presented results for the earlier time at which data were available except in the case of Table VII-8. Computations were performed for the later time also and the results were similar except for TAI vs T-NT (Table VII-8), where the relation was significant at the later time but not at the earlier.

The last four tables, involving GCS, require special comment. As used in these tables the GCS is an estimate of the equivalent number of persons with whom conversations about guidance and testing were held at least once per week, without regard to the size of the school. As might be supposed, the score was found to rise (though not linearly) among persons in the larger schools. To control for this effect, the relations in Tables VII-10 through 13 were re-computed after first categorizing the GCS of each respondent as high, medium, or low in respect to the mean level in his own school. Using these adjusted GCS categories, the same relations held as in the four tables above, although at a somewhat weaker level of significance. In other words, the attitude and practice variables are associated with the frequency of the absolute number of conversations held about guidance and testing matters in all sizes of schools.

The results of Tables VII-4 through 13 show that we can be highly confident that favorable attitudes and greater knowledge about test use tend to be found together with broadened efforts in guidance and testing practices. One might be tempted at this point to cry, "Well, of course!" and let the matter stand. However, positive trends in the above tables, while far above chance in their significance, were not perfect. Many of the individuals tabulated were exceptions to the general positive trends. What are the characteristics of these persons? One example of further research which might be done with these data follows.

Knowledge, Attitude, and Test Discussion

We said earlier that not all persons who talk about tests are favorable to their use. Perhaps the proportion of persons who discuss test results frequently but are unfavorable to their wider use is greater among persons with lesser knowledge about testing. Let us test the sub-hypothesis that the positive relation between discussion of test results with students, parents, and other teachers on the one hand and a receptive attitude toward testing on the other hand is weaker among persons with lesser knowledge about testing than among persons with greater. The overall relation (TDS vs TAI) was shown in Table VII-7.

To test this sub-hypothesis, respondents were divided into three levels by KIT. For each of these groups TDS was distributed against TAI, keeping the marginal totals as nearly equal as possible. The result is shown in Table VII-14. As predicted, the original relation still held at a high level of significance for the high KIT group. The relation lost significance, however, in the middle and low KIT groups. In fact, the trend in the low KIT group was opposite the overall trend.

Table VII-14 seems to say that among well-informed people, those with a favorable attitude toward the wide application of test results tend to carry out this attitude by discussing test results with parents, students, and other teachers. Those with the contrary attitude, on the other hand, tend to omit test results from their discussions. But the relation does not hold among the less well-informed. Among the latter groups, those with unfavorable attitudes are as likely as others to discuss test results with colleagues, parents, and students.

The last sub-table of Table VII-14 suggests that among the poorly-informed, those persons who are reluctant about testing are more likely to discuss test results than are those who welcome the use of test results. This suggests the obverse questions: whether, among those who discussed test results frequently, the less favorable were the less knowledgeable.

Table VII-14. Relation between TAI and TDS within levels of KIT. Figures in body of table are percentages.

High knowledge: KIT of 36-55

	TAI			
TDS	0-11	12-14	15-19	Total
8-9	17	32	51	100
5-7	27	47	26	100
0-4	41	46	13	100
N	44	64	44	152

Chi-square = 19.60

P <.001

Medium knowledge: KIT of 29-35

	TAI			
TDS	0-11	12-13	14-19	Total
6-9	30	27	43	100
3-5	42	34	24	100
0-2	38	27	35	100
N	63	51	59	173

Chi-square = 5.00

NS

Low knowledge: KIT of 10-28

	TAI			
TDS	0-10	11-12	13-19	Total
5-9	46	19	35	100
3-4	34	31	35	100
0-2	37	27	36	100
N	69	46	62	177

Chi-square = 2.60

NS

Table VII-15 shows that this was true. The relation did not hold for persons who discussed test results less frequently.

In sum, there is an overall tendency for favorable testing attitudes to go with favorable testing practices. However, there are important segments of persons who actively engage in practices (such as discussions with others) which enable unfavorable attitudes to be promulgated as well as favorable attitudes. And there are some with favorable attitudes, of course, who leave active endeavor to others. As an example of the way research might delve deeper into the dynamics of these relations, we have shown that knowledgeableness about testing made a difference in the relation between TAI and TDS. Lack of knowledge about testing seemed to permit the person with unfavorable attitudes to speak up more frequently.

Table VII-15. Relation between TAI and KIT within levels of TDS. Figures in body of table are percentages.

High test discussion: TDS of 7-9

	TAI			
KIT	0-12	13-14	15-19	Total
42-55	19	28	53	100
34-41	30	37	33	100
10-33	59	23	18	100
N	39	33	37	109

Chi-square = 15.24

P <.005

Medium test discussion: TDS of 4-6

	TAI			
KIT	0-10	11-13	14-19	Total
35-55	26	42	32	100
28-34	32	34	34	100
10-27	39	32	29	100
N	67	74	66	207

Chi-square = 3.12

NS

Low test discussion: TDS of 0-3

	TAI			
KIT	0-10	11-12	13-19	Total
33-55	37	29	34	100
27-32	24	31	45	100
10-26	25	31	44	100
N	54	56	76	186

Chi-square = 3.39

NS

CHAPTER VIII

COMMUNICATION AND RESPECT

In the course of our research we have paid considerable attention to similarities of attitude and belief within school faculties concerning matters of guidance and testing. Some similarities of this kind were discussed in Chapters IV, V, and VII. In Chapter VII brief mention was made of the communication variable. Some similarities of attitude and belief among persons participating in certain communication patterns will be the burden of this chapter and the two following. Chapters IX and X will focus upon the influence the SIP may have had on beliefs and attitudes in his school.

Certainly more ancient than the label "prestige suggestion" is the hypothesis that A will have more influence on B if B has more respect for B's expertness in the matter being discussed. Further, influence requires communication. At the same time, respect requires some degree of similarity of opinion, and it may be that persons free to choose tend to restrict their communication to persons who already agree with their own beliefs. If so, the possiblities of *change* being brought about by respected persons are limited. These circular effects are complicated; we chose to look at one aspect of the opportunity to be influential *by investigating the hypothesis that degree of respect between individuals is associated with the amount of relevant communication which takes place between them.*

In the *Handbook of Social Psychology*, Riecken and Homans* reviewed experimental support for the hypothesis that "persons who interact frequently with one another tend to like one another." Considering the hoary respectability of this hypothesis and the frequency with which it is assumed to be true in theoretical discourse and in empirical investigations of related variables, it is odd that it has not received more frequent empirical test. A search of *Psychological Abstracts* beginning with

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*Riecken, H. W. and Homans, G. C. Psychological aspects of social structure. In G. Lindzey (Ed.) *Handbook of social psychology*. (Vol. 2) Cambridge, Mass.: 1954. Pp. 786-832. See esp. pp. 794-801.

1955 uncovered only one study* which seemed to be a reasonably direct test of the hypothesis.

In the work reviewed by Riecken and Homans and in later work with attraction (to use Newcomb's term), operational definitions have consisted very largely of subjects' reports of undifferentiated liking or friendship, or of observers' impressions of friendships in natural situations. Apparently little has been done to focus this hypothesis upon particular aspects of attraction such as trust for another (although Mellinger** has studied the relation between trust and accuracy of communication) or respect for a particular competency of another. This chapter reports some results concerning the relation between frequency of communication concerning matters of counseling and testing on the one hand and respect for the judgment of the other person concerning these matters on the other.

Measures

The measure of respect which we used was very simple; the measure of communication was more complicated.

Respect

In the questionnaire given to respondents in 1959, one item was as follows (Appendix C, p. 31, Item 13):

> Please write here the names of members of your school staff whose judgment about counseling or testing you highly respect. (If none, please write "none.")

Accordingly, the feeling of respect on the part of a respondent toward the judgment of each of the others in the school sample was categorized either as existing or as not existing.

Level of communication

Information concerning communication links in the school was gathered in the fall of 1959 by means of a questionnaire which was personally administered to small groups of respondents by an interviewer from the research staff. In most cases a second interviewer assisted the first. The questionnaire was similar in form to that used in 1960, which is shown in

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*Larson, O. N. and Hill, R. J. Social structure and interpersonal communication. Amer. J. Sociol., 1958, 63, 497-505.
**Mellinger, G. D. Interpersonal trust as a factor in communication. J. abnorm. soc. Psychol., 1956, 52, 304-309.

Appendix F. Each respondent was given a list of his school faculty and asked to begin by crossing off the list

> all persons with whom you communicate only an insignificant amount .... to whom you speak only to say "good morning" in the hall or "how are you" at faculty meetings .... There is no certain number each of you should remove.

The respondent then copied the remaining names onto the questionnaire form.

The structure of the questionnaire was explained and the instructions for each section were given orally. In addition, the instructions were summarized in print on the questionnaire itself. The first section of the questionnaire instructed the respondent to indicate for each person on his list about how often he communicated with him (on the average, over the past year), whatever the purpose of the communication. The respondent checked one of four categories:

Almost every day.
Once a week or more.
At least once a month.
Less than once a month.

After this section of the questionnaire was completed, respondents were instructed to cross off from their lists all persons whom they had marked "less than once a month." In the next section of the questionnaire the respondent was asked to state whether his conversation with each person was largely about teaching topics, other school topics, or sociable conversation.* He was then told to cross off the names of those with whom teaching topics was the least part of his communication. Having crossed off persons with whom his frequency of communication of any kind was slight and persons with whom his communication was largely irrelevant to teaching problems, the respondent was led into the next section of the questionnaire.

This section asked him to indicate how much of his communication with each person had to do with guidance. For the purposes of the questionnaire "guidance" was defined as:

> learning the abilities and other characteristics of students through talks with students, through tests, through school records, through talks with parents, etc., and guiding the student through the school curricula and other activities and into occupations or higher education.

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*The respondent was given examples of each of these conversation areas and the interviewer answered respondents' questions.

The respondent marked one of five choices for each person remaining on his list:

Almost all.
More than half.
About half.
Less than half.
Almost none.

We had, then, an estimate by Person A of his frequency of communication about any topic with Person B and also an estimate by A of the proportion of his conversation with B which was devoted to matters of guidance, testing, and related topics.

These two estimates were combined to give a measure of relative level or frequency of communication about guidance and testing. By a multiplicative rationale, codes for level of communication were assigned as shown in the following table.

Table VIII-1. Codes for level of communication.

	Frequency of any kind of communication			
Proportion devoted to guidance and testing.	Crossed off or less than once a month	At least once a month	Once a week or more	Almost every day
Crossed off	0	0	0	0
Almost none	0	1	1	1
Less than half	0	1	1	2
About half	0	1	2	3
More than half	0	1	2	4
Almost all	0	1	3	4

The codes in the above table have approximately the following meanings:

0 Respondent reported an insignificant amount of guidance and testing communication with the other person.

1 Respondent reported guidance and testing communication in the range from a very small amount to as much as one conversation per week.

2 Respondent reported guidance and testing communication in the range from one conversation per week to two per week.

3 Respondent reported communication in the range from two to three times per week.

4 Respondent reported communication equivalent to three or more conversations per week.

After assigning one of these codes to each respondent's estimate of his communication with every other person in the school sample, we compared what Person A said about Person B with what B said about A. Both persons in the pair were then assigned a new code, the same for both person; namely, the lower of the two original codes given by the two members of the pair. The final communication code assigned to each pair of persons (and to each member of the pair) thus represented a lower bound estimate of the communication between them concerning guidance and testing. In other words, a given code assigned to the members of a pair meant that the two persons agreed that the level of communication between them was at least as much as indicated by the code.

At this point, every pair of respondents within every school in our sample had a code for communication level concerning guidance and testing ranging over the integers zero through four. We could have employed various of these levels of communication in further analyses -- and we hope in the future to do so. In this report, however, all analyses are based on splitting the communication levels into two groups: code 2 (equivalent of at least one conversation per week) and above vs code 1 and below. It will be convenient, in what follows, to call pairs of persons "connected" if their communication code was two or above, and "unconnected" if their code was one or below.

First Test of the Hypothesis

Two approaches were used in testing the relation between respect and communication about guidance and testing. For the first manner of testing the hypothesis, the hypothesis was somewhat modified. Rather than looking at each respondent individually, we took the view that: among densely connected groups of persons the frequency of respect choices will be higher than among loosely connected or unconnected groups.

To work out a test of the hypothesis in this form, it was first necessary to locate collections of persons having relatively high connectedness. Every pair of persons within every school had been designated as connected (i.e., having the equivalent of at least one conversation per week about guidance and testing) or unconnected. This made it possible to look for groups of mutually-connected persons or cliques. Although Harary and Ross,* whose method of finding cliques we used, define a clique as at least three persons each of whom is connected to every other, we arbitrarily chose to define the densely connected members of the faculty as being those persons who were members of cliques containing four or more persons.

Actually, however, the present form of the hypothesis directs us not to look for densely connected persons, but rather high densities of connections -- and connections, of course, are coterminous with pairs of persons. The unit of analysis in this first manner of testing the hypothesis is therefore the pair of persons, and measures of communication-connection and of respect-level were assigned every pair.

Within each school, three groups of pairs of persons were distinguished. One group represented a high level of communication or density of connectedness, and was composed of all those pairs of persons which were parts of cliques containing four or more persons.** Another group consisted of all unconnected pairs; this group represented the lowest level of connectedness. (It should be remembered, however, that we are using the term "unconnected" here to mean that at least one member of the pair reported less than one conversation per week with the other concerning guidance and testing; "unconnected" does not mean that no communication on relevant topics took place within the pair.) The third group consisted of all remaining pairs; these were connected pairs, but pairs where their connections were not links in 4-or-more-person-cliques. These three groups of pairs will be called, in order of descending connection density, the "clique group," the "connected group," and the "unconnected group" of pairs.

Some schools were relatively low in density of communication and some schools contained no cliques at all of four or more persons. Because of this, we tested this hypothesis only with schools which yielded a reasonable number of pairs to constitute the clique group; we arbitrarily omitted from the analysis any school which turned out to have fewer than eight pairs eligible for a clique group.

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*Harary, F. and Ross, I. C. A procedure for clique detection using the group matrix. Sociometry, 1957, 20, 205-215. We are very grateful to Mr. Donald C. Furtkamp and Mr. Bud J. Meador for programming the Harary and Ross procedure for the IBM 650 and carrying through the computations.

**One clique of four persons would produce six such pairs; one clique of six persons would produce 15 pairs; two distinct cliques, each of four persons, would produce eight pairs, etc.

After ascertaining the three groups representing levels of communication frequency, we determined the "level" of respect in the three groups. To do this, a simple score was assigned each pair. If neither member of the pair had mentioned the other as someone whose judgment about guidance and testing he respected, the pair was assigned a respect score of zero. If one person mentioned the other as someone he respected, the pair was assigned a score of one. If both persons had mentioned each other, the pair received a score of two.

This raw respect score for pairs of persons, however, could not be used as it stood to ascertain the general level of respect in the group of pairs because the pairs overlapped each other in the persons composing them -- the respect scores for pairs were not experimentally independent. An individual who tended to respect a great many people, if he were one of many pairs in a group of pairs, would "inflate" the summed respect scores for that group of pairs. His tendency to respect more people than did others had to be taken into account. To do this, corrected respect scores, adjusted for the tendency of the individual to respect others, were assigned the pairs by the method of Runkel, Smith, and Newcomb.* This method assigns adjusted scores which take the form of deviations from the grand mean of the entire sample being studied. For each of the three groups of pairs in each school, then, a mean of the adjusted respect scores was computed. The results are shown in Table VIII-2.

Results

The prediction was that the respect levels would decrease from left to right across the three columns labeled by groups in Table VIII-2. Since the mean respect levels in those columns are deviations from the mean respect level for the school, a positive mean for one of the three groups of pairs necessitates a negative mean for some other group. In the table,

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*Runkel, P. J., Smith, J. E. K., and Newcomb, T. M. Estimating interaction effects among overlapping pairs. Psychol. Bull., 1957, 54, 152-158.

Table VIII-2. Mean adjusted respect levels within groups of pairs of persons classified by communication level.

	Mean adjusted deviation from school mean respect level				
School number	Clique group	Conn. group	Uncon. group	Tau	P of clique group mean*
018	.21	.08	-.02	1.00	.0005
091	.44	.13	-.06	1.00	.0003
117	.20	.07	-.04	1.00	.010
153	.28	.07	-.04	1.00	.018
274	.09	.05	-.02	1.00	.179
495	.22	.08	-.01	1.00	.158
600	.19	.08	-.02	1.00	.077
601	.11	.10	-.02	1.00	.232
602	.08	.01	-.02	1.00	.146
188	.32	-.07	-.01	.33	.093
280	.03	-.02	00	.33	.435
281	.22	-.12	-.02	.33	.078
531	.03	None	-.02	----	.314
430	.16	.20	-.02	.33	.231
484	.01	.05	-.01	.33	.498
488	.16	.22	-.05	.33	.071
264	-.06	.03	00	-.33	.696
Combined probability				< .001**	< .001***

*One-tailed probability of difference from zero of the clique group means, by t-test.

**Binomial probability of obtaining 15 out of 16 positive taus from, e.g., appendix Table D of S. Siegel. *Nonparametric statistics for the behavioral sciences*. New York: McGraw-Hill, 1956. Siegel may also be consulted for a description of Kendall's tau statistic.

***Probability of the combined result by the method of M. H. Gordon, E. H. Loveland, and E. E. Cureton. An extended table of chi-square for two degrees of freedom, for use in combining probabilities from independent samples. *Psychometrika*, 1952, 17, 311-316.

all but one of the means for the clique groups are positive, and the means of the unconnected groups are pleasingly negative. In nine of the schools (the uppermost section of the table) the respect levels of the three groups of pairs fell precisely in the order predicted; this is indicated by the taus of 1.00. In School 531 the order of means could not be assessed because one group did not materialize; pairs in School 531 were either parts of cliques or were unconnected. In the other three schools of the second section of the table, the clique groups had the highest respect levels and the connected groups the lowest. In the third section of the table the unconnected groups had the lowest respect levels, as predicted, but the connected groups had the highest. In the single school in the last section of the table the connected group had the highest mean and the clique group the lowest.

To assess the outcome over all schools except 531 in Table VIII-2, we used the simple method of counting the number of positive taus (15 out of 16) and comparing this with what the binomial distribution with p = .5 would predict. It is to be remembered that each school gave us independent data, and each row of Table VIII-2 can be considered a replication of the "experiment." The overall result for order of group means was significant beyond the .999 level.

Obtaining the predicted order of three things (i.e., group mean respect levels) can only be significant at the .833 level at best, and this gives us an unsatisfactory amount of information about an individual school. For this reason, we went on to examine the results in another way. The three means in any one group are not statistically independent, but the mean of one group can be tested for significance without complicating the interpretation. We computed the random probability of obtaining a mean as large as that obtained for the clique group in each school. These probabilities appear in the last column of the table. Four schools of the 17 yielded clique group means with probabilities beyond .05; eight beyond .10; only one school (264) had a mean in the direction opposite to prediction. The combined result over all 17 schools, assessed by the method of Gordon et al.* was significant beyond the .999 level. The sizes of the groups of pairs we have just been discussing are given in Appendix P.

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*Op. cit.

So much for overall results. Some few words will now be appropriate concerning the way we stated the hypothesis for this first test. Although our measure of communication frequency was used only to characterize each pair of persons as either connected or not connected, we went a step further than dividing the pairs of persons in each school merely into connected and unconnected groups. From among the connected pairs of persons, we took out yet a third group of pairs which belonged to densely connected structures -- namely, to cliques of four or more persons. Do our results show that we were justified in making a distinction between collections of connected pairs and densely connected groups of pairs?

If the relation between connectedness and frequency of respect choice depended only on whether there was a connection with the person being respected, then we should predict that the clique group mean would be greater than the connected group mean no more often than the other way around. If being connected to persons who are themselves connected (i.e., belonging to a clique) increases the likelihood of respect, then we should predict, as we did, a tendency for the clique group mean to be higher. It can be seen in Table VIII-2 that of the 16 schools having both clique and connected groups, only four produced clique group means lower than connected group means. The binominal probability of so few as this is .038, which supports our sub-hypothesis.

As to the strength of the relation between communication and respect in the realm of guidance and testing, it is clear from Table VIII-2 that the relation was moderately strong in some schools and very weak (if present at all) in others. It should be remembered that these schools differed widely in ways which affect such a relation as the one we have been examining. They differed in size, in relative number of counselors, in duties assigned to counselors and their officially-assigned paths of communication, in stability of opinion about the use of test results, and in many other ways. The influence of some of these variables on the relation between communication and respect is an open field for future research. For example, it may be that some connected groups of pairs show a low level of respect because the communication links are forced by the official channels -- links which would be broken off if the participant were free to do so.

Our data give no information about the direction of causality between communication and respect. It seems to be true, however, that the relation does not appear in some schools, and tends to be weak or non-existent -- as will be seen in the next section -- for interaction within one group of respondents. Further work focusing upon such schools or respondent groups might illuminate causal sequences.

Turning to practical matters, it is clear from Table VIII-2 that large numbers of the school faculties were in frequent communication about guidance and testing with persons whose judgment they did not regard with especially high respect -- whose judgment was on the average respected less than the mean level of respect in the school. This is shown by the fact that the figures for the connected groups are generally low and sometimes negative. We should remember, too, that "connected" in Table VIII-2 indicates a frequency of communication above an arbitrary cutting point. Even in "unconnected" pairs some communication about guidance and testing was taking place. One wonders what problems these communication links may produce in the operation of a guidance program. It is true that respondents were asked to name persons whose judgment they "highly" respected, and failure to name another may not have indicated a negative opinion of his judgment in the absolute sense. On the other hand, a negative level of respect in Table VIII-2 does indicate a relative lack of respect in terms of the general level in the school, and the concepts of "level of adaptation" and "relative deprivation" remind us that talking with a person who succeeds in avoiding bungling can be a burden if it prevents us from talking with someone truly adroit.

Second Test of the Hypothesis

The manner of testing the hypothesis described in the previous section focused upon the level of respect following along the communication links among persons. When communication links were dense, tying individuals together with a great many high-frequency links among comparatively few people, a higher level of respect was found to accompany these links than when the links among the persons were fewer. Informative though that analysis may have been, it perforce paid no attention to the "kinds" of persons involved. An inspection of the communication sociograms of our sample schools (see Appendix L) quickly gives the impression that communication about guidance and testing frequently centers upon persons officially assigned duties relevant to these matters; namely, upon counselors, deans, and (especially in the smaller schools) administrators. This raises a further question which one would like to ask of the data; namely, is the association between respect and communication primarily due to the fact that the official position of counselor captures high levels of both these variables? This kind of question is also raised by some of the studies reviewed by Riecken and Homans* in which communication was seen to be directed more frequently toward persons of higher "rank" of one kind or another. Larson and Hill** also studied the direction of communication in relation to "status," and found that persons who had received the fewest "status" choices from others originated more acts of communication. Larson and Hill used an operational definition of status which seemed to be heavily weighted with what we would call attraction. Their study and ours, unfortunately, are not directly comparable since Larson and Hill examined the locus of origination of directed communication, identifying the locus by means of attraction choices. Our study relates the existence of the two-way communication links to respect choices between the individuals linked.

In our second test of the hypothesis, we used the same measures of communication linkage and respect choice, but our unit of analysis was the individual rather than the pair. For every individual an index of association was computed between his being connected to another person and his choosing that person as someone whose judgment he respected.

As a measure of the association between our two variables within every individual, we used Kendall's***Q-statistic because it mirrors the possibilities of choice which were realistically open to our respondents. That is, we did not want to define complete association between our two variables to mean that Person A talks about guidance and testing to others and only to others whose judgment he respects. Person A might prefer to limit his conversation in this manner, but he might find himself constrained to talk about guidance and testing with persons whom he does not respect; for example, people might come to him to learn things about guidance and testing. In this case we wanted a measure which would reach unity if Person A limited his respect choices to those with whom he talked, even though he might respect only some of them. On the other hand Person B might, because of their reputations, respect some persons with whom he almost never talks. Here it would nevertheless seem reasonable for the association measure to be maximum if Person B limits his conversation to those persons he respects, even though there are some persons he respects with whom he does not talk about guidance and testing. Kendall's Q reflects this kind of single-implicative relation. It is computed from a four-celled table and reaches unity if any one cell is zero.

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*Op. cit.

**Op. cit.

***Kendall, M. G. The advanced theory of statistics. (2 vols.) London: Charles Griffin & Co. Ltd., 1943. See Vol. I, pp. 310-313.

Selection of subjects

In the first test of our hypothesis, comparisons were made between group levels of communication and group levels of respect, and all respondents could be included in the analysis if the school could be included. In the present analysis, on the other hand, a contingency table must be constructed for every respondent in which those others whom he does and does not respect are tallied in the rows (let us say), and those with whom he does and does not have communication connections are tallied in the columns. Some respondents were dropped from the analysis at the outset because they were connected to no one and respected no one. In the contingency tables of such persons, two of the marginals were zero. Although Kendall's Q has a value of zero for such a table, the measure is all but meaningless. However, even though some individuals were omitted from the analysis, every school is represented.

Another group of respondents had contingency tables which had one marginal of zero -- they either respected no one or were connected to no one, though not both. These tables also had a Q of zero and were also dubious in their meaning, but we shall mention them again a little later.

Still another portion of the respondents yielded contingency tables in which one marginal had a value of one; the respondent respected only one person or was connected only to one person. It is clear that the value of Q for such a table is a very unreliable measure, since the placement of only one tally in the cells of the table determines whether the Q-value shall be +1 or -1; no intermediate values are possible. We felt such unreliable contingency tables should receive special attention, as will be seen below.

Results

Table VIII-3 shows that the overall result was in the predicted direction, which is not surprising since the underlying data are the same as those used in the first test of the hypothesis.

The results in Table VIII-3 are grouped into seven bands, each band containing three lines. In the first band, for example, only the contingency tables of teachers are included -- teachers are the choosers in this band -- and only teachers are tallied in those contingency tables -- teachers are also the chosen in this band. The first line (the line containing an "x" in Column 5 of the table) shows that for those teachers having unambiguous and reliable contingency tables (tables with all marginals at least 2), the mean Q was only .13 (Column 6), the proportion of contingency tables showing a positive association between respect and communication was .67 (Column 7), there were 21 contingency tables in the computation (Column 8), and the one-tailed binomial probability of the proportion of .67 was less than .063.

It can be seen that when only the contingency tables in which teachers chose teachers were examined, the number of unambiguous and reliable contingency tables was a small fraction of the total number of teachers in the sample. When one sets aside subjects because their data are not easily handled by the method of analysis he has chosen, he runs the risk that the remaining subjects may carry an unknown bias into the final result. This is the reason we have included the second and third lines in each band of Table VIII-3. In the second line, contingency tables containing marginals of at least one are included in the computations, and in the third line even tables containing one zero marginal are included. Even with the addition of the dubious cases into the computations, however, it can be

Table VIII-3. Groups of Respondents. Association (Kendall's Q) between communication links and respect choices in 1959, classified by groups of respondent choosing and chosen.

Choosers	Chosen	Smallest marginal in contingency table of choosers included in the computation			Mean Q	Prop. pos. Qs*	Chooser N	p**
		≥0	>0	>1				
1	2	3	4	5	6	7	8	9
Teachers	Teachers			x	.13	.67	21	<.063
			x		-.04	.51	81	NS
		x			-.01	.50	283	NS
Specialists	Teachers			x	.48	.92	25	<.001
			x		.26	.76	50	<.001
		x			.11	.60	113	<.021
All	Teachers			x	.32	.80	46	<.001
			x		.07	.66	131	<.001
		x			.02	.53	396	NS
Teachers	Specialists			x	.36	.76	72	<.001
			x		.28	.67	183	<.001
		x			.15	.59	350	<.001
Specialists	Specialists			x	.47	.81	59	<.001
			x		.45	.77	85	<.001
		x			.32	.71	112	<.001
All	Specialists			x	.41	.78	131	<.001
			x		.33	.70	268	<.001
		x			.19	.62	462	<.001
All	All			x	.46	.82	275	<.001
			x		.27	.70	390	<.001
		x			.20	.65	520	<.001

*Proportion of positive Q-values. Where Qs of exactly zero occurred, half were called positive.

**Binomial probabilities for one tail. NS means P > .20.

seen that the direction of the conclusions to be drawn from the table remains substantially the same.

If official position were responsible for the association between respect and communication about guidance matters which we found in our first analysis, then counselors, deans, and department heads would tend to fall in the "connected and respected" cell of the chooser's contingency table, and teachers and librarians would tend to fall in the "unconnected and not respected" cell. Then, if the chooser were limited to choosing among persons in only one of these groups, the association would weaken, if not vanish. In Table VIII-3, counselors, deans, and department heads are called specialists* and librarians as well as teachers are included in the term teachers.

Table VIII-3 shows clearly that the association between communication and respect does not diminish precipitously when respondents' choices within only one respondent group are examined. When all respondents choose among all others, the mean Q is .46 (first line of last band). When all choose only among specialists the mean Q is .41, and when all choose only among teachers the mean Q is still .32. The corresponding proportions of positive Qs are .82, .78, and .80 -- which are substantially equivalent to each other. There is certainly no evidence here that official position connected with guidance duties in the school accounts for any important part of the association the respondents showed between their communication links and their respect choices.

Nevertheless, there are some interesting suggestions in Table VIII-3 concerning differential association between the variables. To make these clearer, the sub-table below abstracts certain information from Table VIII-3.

	Chosen			
	Teachers		Specialists	
Chooser	Mean Q	Prop. pos. Qs	Mean Q	Prop. pos. Qs
Teachers	.13	.67	.36	.76
Specialists	.48	.92	.47	.81

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*Administrators were not included in the computation because they had not been asked to make respect choices.

In this sub-table, it appears that the relation between communication and respect was weaker within the choices of teachers than within those of specialists. It was not so much who was chosen that made the difference as who was choosing. In combination with the previous findings, this suggests that the association between respect and communication did not focus upon the distinction between those officially charged with the relevant duties and those not charged, but that a good part of the strength of the association may have depended upon sufficiently trained cognitive structure to support discriminating respect choices and the selective establishment of communication links. The specialists, presumably trained to think and take action concerning guidance matters discriminatingly, did differentially communicate with teachers, did differentially respect them concerning guidance matters, and did associate these two kinds of choices positively -- so our data demonstrate. Teachers, on the other hand, did not behave this way toward other teachers (see the first band of Column 9 in Table VIII-3). The proportion of positive Qs when specialists were choosing teachers was significant beyond the .999 level,* while the relation when teachers were choosing teachers did not reach the .95 level even when the computation was restricted to the most reliable of the contingency tables.

This conclusion, that some minimum capacity for cognitive differentiation is necessary if a relation between communication and respect is to appear, needs some qualification. In the first place, it probably should not be extended to the relation between communication and liking, since liking in the approach-avoidance sense is a very primitive orientation requiring little more cognitive discrimination than the ability to tell one person from another at sight. This difference between the orientations of liking and respect can often be observed in the relations among professional persons. We often find ourselves liking a colleague whose professional capacities we do not especially respect, and vice versa. Correspondingly, the frequency of professional communication can follow respect at the professional level, and "scatic communion" can conform to liking. In fact, as we go from coterie to coterie at convention time, we alter the content of our communication to suit the kind of orientation which can support the approach behavior.

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*To save space and make scanning easier, probabilities beyond .001 are entered only to the third decimal place in Column 9 of Table VIII-3. Actually, many of the probabilities entered as ".001" are less than one chance in a million.

The point just made is a point of relevance between the nature of the attraction and the content of the communication. When a restricted content of communication is being studied, or a restricted dimension of attraction, one should not expect an association between the variables unless they are relevant to each other -- unless they belong to the same cognitive domain. The empirical exploration of the possible relevant domains mediating attraction and communication has hardly begun.*

The point of relevance suggests another qualification regarding the importance of cognitive structure in establishing a relation between communication and attraction: that of specificity of role in different "technical" domains of human interaction. Our study took place in secondary schools in Illinois, in which the specificity of the counselor's role was no doubt more precisely delimited than are some social roles and no doubt looser than others. In organizations where the duties of a particular role are more restricted to appointed persons than is so with the assignment of guidance duties in our sample schools, the relation between communication and respect may rest more heavily on official position. In organizations containing a less specific role, all subgroups may show substantially the same degree of relation between the variables. Much research is needed in various kinds of organizations containing various kinds of roles and dealing with various kinds of technical communication if the paths of communication flow are to be anticipated from attraction and position.

The practical problems mentioned in the previous section are illuminated by the figures showing that communication and respect are more closely associated for specialists than for teachers. This means, of course, that the teachers in our sample more frequently (proportionally) found themselves communicating with someone whose judgment they did not respect than did specialists, and this likelihood was greater when they were talking to other teachers. Does this result in teachers generally finding discussions of guidance and testing matters more onerous than do counselors and other specialists? Does it mean that school customs or rules require teachers to communicate more often with those they do not respect? Does some other combination of factors, including perhaps time pressure or building geography make respected persons less accessible to teachers than to specialists? Whatever the explanation may be, the figures seem to argue that specialists succeed much more often than do teachers in limiting their contacts concerning guidance and testing matters to those faculty members whose judgment they respect, and this makes one wonder whether those teachers most in need of "enlightenment" about guidance and testing are perhaps those most neglected by the experts.

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*Compare Newcomb, T. M. Individual systems of orientation. In S. Koch (Ed.) Psychology: a study of a science. (Vol. 3) New York: McGraw-Hill, 1959. Pp. 384-422.

A final word should be said about a possible confounding between our measures of respect and communication. Precautions were taken against halo effect by administering the two instruments at different times; however, the question remains to what extent our measure of communication departs from actual frequency of communication by virtue of resting on reports of perceived frequency. No doubt some error has crept in from this source. We hope that the error which would enter into a simple measure of perceived communication frequency has been reduced by defining each link as the lower of the estimates given by two persons and by obtaining the estimates in two stages -- (1) frequency of any kind of conversation and (2) proportion devoted to guidance and counseling. Beyond these considerations, our confidence in the validity of the communication measure is enhanced by other data concerning communication in the sampled schools which will be presented in the next chapter.

CHAPTER IX

THE INFLUENCE OF THE NEW COUNSELOR:

CHANGES IN ROLE DEFINITIONS

One of the requirements for entry into the institute held at the University of Illinois in the summer of 1959 was that the applicant's principal must have agreed to assign counseling duties to the SIP upon his return to the school in the fall. Only one applicant was admitted from any one school, presumably with the purpose of spreading the effect of the institute as far abroad as possible. Indeed, one of the suppositions in establishing training insitutes for counselors such as the one at the University of Illinois seems to be that the trainees, when they return to their schools, will become "leavening" in their faculties. Correspondingly, one of the purposes of our research was to ferret out evidences of the SIPs' influence on their faculties.

Although the task of finding quantitative evidence concerning influence by the SIP on other faculty members was challenging to us, we were pessimistic from the outset about our chances of doing so. In most cases, the SIPs had been teachers for some length of time in the schools from which they came. Like many other teachers in those schools, they spent the summer getting additional training.* When they returned, most were given only part-time counseling duties. It seemed to us that there was little in these circumstances to cause the SIPs suddenly to become more influential in their schools than they had been before they attended the counseling institute.

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*Aside from the fact that obtaining further training during the summer is hardly held in awe in today's schools, it is likely that many colleagues were probably not aware that the SIP was receiving specialized training. In Fairview School, studied in Project 509, an in-service institute in measurement and testing was held in the school building itself on two days of each week for eight weeks. The instructor met teachers not only after the school day but also during class hours. Nevertheless, when 27 non-participants were interviewed about their awareness of the institute, more than half disclaimed any knowledge of the institute, and none of the remainder had engaged in any conversation with the participants concerning the use and interpretation of tests.

Furthermore, the selection of only one person from each school flew in the face of well-established principles of the social psychology of influence, as well as against frequent informed practice. The mutual support and greater resistance to contrary influence which might have been gained from training a team of two or three was lost. To hope that a new guidance counselor could by himself have any widespread influence on the opinions or practices in his school seemed to us over-optimistic. To expect this in some schools would have been to expect him to overcome possibly competing influences from administrators and other counselors of greater experience and prestige than himself.

In spite of the expected difficulties, we undertook to seek evidence that the SIPs had some effect on the views of their colleagues concerning the work of the counselor. Our strategy in seeking this evidence had two chief features. First, we chose matters of opinion to study rather than overt practices -- matters of opinion on which the SIP might be expected to form rather firm opinions but which at the same time would probably show a spread of opinion among the faculty. This chapter reports changes in opinions concerning the counselor's role and Chapter X discusses changes in opinions concerning the dissemination of test results. Second, we reasoned that our search for the SIP's influence would be easier if we could set aside those members of the faculty whom the SIP had little chance to influence; namely, those with whom he rarely communicated about matters of guidance and testing. It was this latter point of strategy which led us to spend a considerable part of our resources in assessing the communication networks among the faculty samples.

Changes in Certainty about the Counselor's Role

The instrument for assessing expectations and preferences about the counseling role of the SIP was described in Chapters III and V. With each of the 39 items in this instrument, the respondent was offered three possible answers: yes, no, or uncertain.* It would have required much more data-gathering than we had the boldness to ask of our respondents to assess the whole array of variables which theoretically could have importantly affected the _direction_ of influence (toward _yes_ or _no_) which any of our lone SIPs could have had in his school. Although further analysis (like that, for example, in Chapter V) of direction of change in perceptions of the counselor's role may yet be fruitful with our existing data, we chose for the purposes of this chapter to turn our attention first to the influence the SIP may have had on the proportion of _uncertainty_ in the answers his colleagues gave to the questionnaire. Even though communication with the SIP might not cause a colleague to come to agree with the SIP on a _yes_ or a _no_ where he had previously given the other answer, discussion with the SIP might nevertheless result in the colleague forming an opinion where he had previously been without one. In brief, although it might be too optimistic to hope that the SIPs would move faculty opinion in some certain direction, we did at least hope to find some evidence that the SIPs, or some of them, precipitated opinion formation about the role.

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*In the "appropriateness" column of the fall 1959 and spring 1960 questionnaires, the respondent was also offered the answer "doesn't matter." This answer was chosen so infrequently that the rare "doesn't matter" answers were lumped with the "uncertains."

Let us begin by looking at the changes in certainty which occurred from fall 1959 to fall 1960 among the faculties and among the SIPs. Table IX-1 shows the descriptive data for the expected role of the SIP (what he was presently being expected to do) and Table IX-2 pertains to his appropriate role (the duties he _ought_ to have).*

Column 3 in each of the tables shows the mean certainty (the possible range was 0 to 39) for each school in the fall of 1959. Looking at the lines for "total" in the two tables, we see that faculties when pooled had nearly equal certainty about the two roles; on the average, they gave yes or no answers to about two-thirds of the items, whether responding about existing expectations on the SIP (Table IX-1) or about what they would prefer for him to do (Table IX-2). Some schools differed greatly from each other in certainty at the beginning of the study (Column 3), but most clustered close to the mean:

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*Since this chapter and the next concern changes over time, schools are omitted which had lost their SIPs in the fall of 1960. Similarly, the N of respondents for each school is smaller than in some other chapters because only those respondents are included in the computations who were present at both of the times measurements were taken.

Table IX-1. Changes in certainty, fall 1959 to fall 1960, on expected counselor's role on the part of school faculties and the SIPs.

		Faculty means			SIP	
School No.	N	Mean certainty in 1959	Mean change to 1960*	Pr of mean change**	Certainty in 1959	Change to 1960*
1	2	3	4	5	6	7
274	15	29.67	4.33	< .01	33	7.17
538	7	26.07	3.47	NS	36	3.13
495	22	31.60	3.23	< .01	37	4.69
601	15	33.63	2.65	NS	33	6.17
280	22	33.72	2.36	< .025	38	5.49
343	9	32.28	2.21	NS	16	12.80
602	5	37.50	2.10	NS	36	9.13
603	10	34.10	2.01	NS	32	5.17
604	5	25.88	1.63	NS	20	9.80
018	23	31.91	0.97	NS	38	2.95
415	11	31.14	- 0.28	NS	37	4.69
188	17	22.06	- 1.20	NS	15	13.80
257	56	30.35	- 1.45	NS	15	13.80
463	12	28.79	- 1.64	NS	36	9.13
244	13	30.92	- 1.74	NS	19	12.80
264	16	35.97	- 2.16	NS	21	10.80
484	14	29.79	- 2.30	NS	32	7.17
430	22	30.52	- 2.36	NS	37	4.69
600	10	29.31	- 3.73	NS	14	15.85
301	18	31.07	- 6.36	< .05	27	8.17
Total	322	30.85	- 0.26	NS	28.6	8.37

*Corrected for regression of fall 1960 certainty on fall 1959. Positive change means more certainty (fewer items answered "uncertain") in fall 1960.

**Two-tailed probability of difference from zero by t-test. NS means > .10.

Table IX-2. Changes in certainty, fall 1959 to fall 1960, on appropriate counselor's role on the part of school faculties and the SIPs.

		Faculty means			SIP	
School No.	N	Mean certainty in 1959	Mean change to 1960*	Pr of mean change**	Certainty in 1959	Change to 1960*
1	2	3	4	5	6	7
274	15	29.60	4.28	< .001	39	0.79
602	6	32.67	3.90	NS	38	- 0.34
343	9	31.94	2.98	NS	35	- 8.16
280	21	30.24	2.71	< .006	33	7.76
603	9	32.22	2.02	NS	36	- 6.13
538	7	26.29	1.80	NS	36	4.87
495	22	32.32	1.68	NS	37	4.10
415	11	28.86	1.43	NS	38	4.66
601	15	31.23	1.40	NS	32	4.54
463	12	31.21	0.74	NS	36	3.87
484	14	29.64	0.67	NS	32	8.54
018	22	31.16	0.65	NS	39	2.79
604	7	33.36	0.23	NS	35	0.84
257	56	29.65	0.03	NS	37	4.10
301	19	27.95	- 0.13	NS	38	0.66
264	16	33.00	- 0.26	NS	36	3.87
600	9	28.80	- 0.52	NS	34	5.76
188	17	22.85	- 0.83	NS	33	1.76
430	21	28.32	- 1.11	NS	34	1.76
244	13	26.85	- 1.22	NS	29	- 0.47
Total	321	29.76	0.77	< .05	35.4	2.28

*Corrected for regression of fall 1960 certainty on fall 1959. Positive change means more certainty (fewer items answered "uncertain") in fall 1960.

**Two-tailed probability of difference from zero by t-test. NS means > .10.

	School mean certainty in 1959	
	Range	Interquartile range
Expected role:	15.4	3.47
Appropriate role:	10.5	2.52

Mean changes in certainty on the part of school faculties are shown in Column 4 of Tables IX-1 and IX-2. In computing changes, each individual's change was adjusted for the regression of fall 1960 certainty scores on fall 1959. Because the distributions of the certainty scores were highly skewed, a linear regression was not computed; instead, the entire sample of fall 1959 scores was divided into groups having about equal frequencies, and the mean fall 1960 score was computed for each of these 1959 groups. The mean for each of these groups was its expected 1960 certainty score, given its 1959 score. The difference between an individual's expected 1960 score and his obtained 1960 score was the amount by which he exceeded the average of others who received his 1959 score. This difference added to the mean increase for the total sample gave the individual's corrected change score, a positive number indicating increase in certainty.

We can see from the numbers at the bottom of Column 4 in Tables IX-1 and IX-2 that our search for influence on the part of the SIP will not be an easy one. In regard to the expected counselor's role (Table IX-1), the total sample showed a mean decrease in certainty of .26 of an item. In regard to the appropriate role (Table IX-2), the total sample increased its certainty only by .77 of an item, on the average. Although this latter change was significant beyond the .95 level (Column 5), the amount of change gives little scope for searching for that part of it which might be attributable to the SIP. Only two schools in Table IX-2 showed significant increases in certainty within themselves.

Turning to the changes on the part of the SIPs, we find clear trends toward increased certainty. All changes by the SIPs on the expected role items were positive, with a mean increase of 8.37 items. The random binomial probability of 20 positive changes out of 20 is less than .001. Although not so overwhelming, the trend in regard to the appropriate role was also strong. There 16 out of 20 SIPs showed increases of certainty, which has a random probability of less than .006. Clearly, the SIPs firmed up their opinions about what they were expected to do and about what they felt desirable during the year under study.

So far, the data argue that the SIPs had very little influence on opinion formation about the counselor's role (since very little increase in certainty occurred in the schools as a group), but that the SIPs themselves sharpened their opinions considerably over the year. Supposing that the chief source of influence on our respondents' opinions about the counselor's role would lie with colleagues rather than with sources outside the school, the obvious interpretation of Tables IX-1 and IX-2 is that interaction with the faculty had strong effects in firming up the SIP's opinions but that almost no effect occurred in the other direction. As we said at the outset, this is just what we feared.

Pessimistic though the picture of the SIP's influence may seem at this point, we have not yet touched upon the second part of our strategy: the study of communication with the SIP. Evidence was found and will be presented below that differential increases in certainty were associated with frequency of communication with the SIP. Even without considering communication patterns, however, there are relations in the data which illuminate the relative changes in certainty which took place, and these further findings will be presented before we bring the communication variable into the discussion.

Relation between faculty change and SIP change in certainty

Schools are arranged in Table IX-1 in the order of the mean increase in certainty on the part of the faculty (Column 4). Inspection of Column 7 of the table -- increase in certainty of the SIP -- reveals that the changes toward the bottom of the column tend to be larger than those near the top, a pattern opposite to that of Column 4. The data of these two columns were graphed and the corners test* applied; the negative relation between them was found to be significant beyond the .95 (two-tailed) level. In other words, although all SIPs increased in certainty of their answers about what they were being expected to do in their schools, their certainty tended to increase to a greater extent if the faculty certainty decreased, and their certainty increased less if the faculty certainty increased. It is almost as if there were a limitation on how much increase of certainty there could be: as if faculty or SIP could increase, but not both. We do not suppose that this was true; nevertheless, this finding suggests a sort of compensatory action. As the faculty became more certain, did some decide upon no answers and some upon yes, thus presenting the SIP with a dilemma? When faculties became less certain, did the SIP merely decide for himself what his duties would be in the absence of any firm opposition? These questions are not answered in this report; we hope that future work will illuminate them. In any case, the significant negative relation between SIP changes and school mean changes argues that the data have a useful reliability even though many of the school mean changes were in themselves not significantly different from zero.

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*Mood, A. McF. Introduction to the theory of statistics. New York: McGraw-Hill, 1950. See pp. 410-414.

The relation between SIP changes in certainty and school mean changes was significant only for the data of Table IX-1 (the expected role). The corresponding data from Table IX-2 were not significantly related. We shall find other relations later in the chapter which are significant in regard to the expected role but not in regard to the appropriate role; it seems likely that this happens because opinions about the expected role are more subject to "reality pressure" than are opinions about the appropriate role. Questions about what was presently being expected of the SIP were substantially questions of fact, while questions about what ought to be done were questions of preference or aspiration.

Expected role vs. appropriate role

It is clear from Tables IX-1 and IX-2 that the responses to the "expected" part of the questionnaire were somewhat different from those to the "appropriate" part of the questionnaire, but it will be helpful to make a direct comparison of the responses to the two parts. Figure IX-1 is a graphic representation of Columns 4 and 7 of Table IX-1 vs. Table Table IX-2; the black dots locate the school mean changes in certainty in regard to the two roles and the x's locate the SIPs' changes. The figure dramatizes the much greater changes on the part of the SIPs than on the part of the school means.

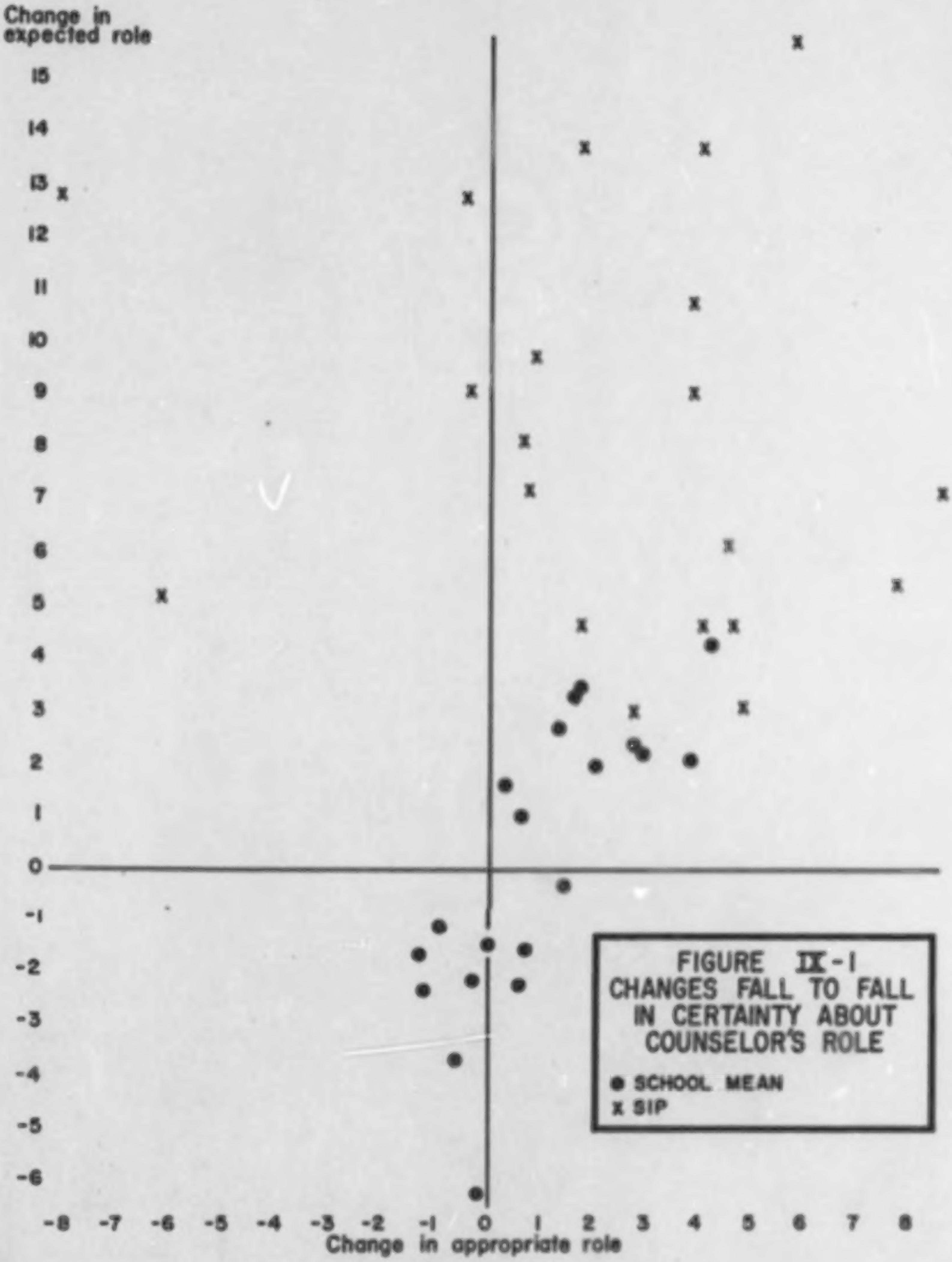

FIGURE IX-1
CHANGES FALL TO FALL
IN CERTAINTY ABOUT
COUNSELOR'S ROLE

It is obvious from inspection of Figure IX-1 that school means in regard to the two roles were very closely associated -- if certainty in a school increased in regard to one part of the questionnaire, it also increased in regard to the other. Since the two parts of the questionnaire were printed as two columns running down past a single set of items, we might suspect the close correlation in the figure to be a result of halo in answering the items. However, an F-test of the two variances showed them to be different at the .99 level; we can be confident (at this level) that changes from "uncertain" answers to "yes" or "no" (or vice versa) were made in the "expected" column when they were sometimes not made in the "appropriate" column.

It is also evident from inspection of the figure that there was no relation for SIPs between the two roles in regard to increases in certainty.

As much evidence as we have so far presented makes it clear that changes were occurring in the sampled schools during the period from fall 1959 to fall 1960 in the opinions respondents held about the role of the SIP. We shall continue to look for evidence of the importance of the SIP in respect to these changes, but a word should be said here about the "Hawthorne effect" -- the general increase in responsiveness which probably occurred as a result of the three times we invaded the schools with our interviewers and our questionnaires.

Perhaps the great increase in certainty on the part of the SIPs concerning their expected role was due partly to sensitivity aroused by their recent training, partly to the spur provided by our asking them questions about their duties, and partly to questions from colleagues who in turn may have been prompted by our questionnaires. It is also instructive to look at the extreme changes in school means in Figure IX-1. The black dot farthest toward the "northeast" in the figure represents a school which was probably the most "researched" school in our sample. Not only was this school participating in our study, but it was at the same time a sample school in two or three other large studies; in addition, small projects originating within the school were continually in progress and the principal was beginning to lay plans to reorganize the entire school in the near future. At the same time, this school had one of the most dense patterns of communication about guidance and testing. The quickness of communication and the ferment of research may have made it easier for this faculty than for other faculties to arrive at firm opinions about the items on the role questionnaire.

Characterizations of some of the other schools charted in Figure IX-1 will be given later in the chapter.

Hypothesis 1 -- concerning SIP certainty and change in faculty certainty

As with a theory, one way to test an hypothesis is to test a consequence of it. Even though strictly illogical, a supported consequence lends weight to the hypothesis. Proceeding thus illogically, we shall argue that the SIP can succeed better at shaping opinion among the faculty if he maintains a firm opinion position himself instead of changing his opinions as time goes on. Consequently, we state the hypothesis that *increase in faculty certainty is positively related to the certainty of the SIP at the outset*. At many points in this report we have given evidence of the importance of assessing certain aspects of the cognitive structure of individuals who are communicating within a technical field such as that of guidance and testing. This hypothesis follows that line of thought in implying that clarity and differentiation (i.e., certainty) of the SIP's cognitive field makes his communication with his colleagues more effective.

To test this hypothesis, the data in Column 4 of Tables IX-1 and IX-2 were distributed against the data in Column 6 and the corners test applied. The result for the expected role was significant at the .95 level (two-tailed). The result for the appropriate role, although in the predicted direction, was not significant. Though devious, this result gives some slight credence to the proposition that the opinions of the SIPs had some connection with increases in certainty in their faculties concerning the expected role.

Communication and Increase of Certainty

Our reason for bringing the communication variable into our analysis of influence was simplicity itself: influence is carried by communication. This section will shortly take up communication with the SIP; first, however, the stage will be set by considering the general pervasiveness of communication in the school about guidance and testing in its relation to increase of certainty about the counselor's role.

Hypothesis 2 -- concerning communication in the school and increase in certainty

It is a common hypothesis that people form opinions by talking with each other. We had no reason to suppose that this hypothesis should not apply to forming opinions about the counselor's role by talking to colleagues about guidance and testing. We therefore hypothesized that schools with greater density of communication about guidance and testing show greater increases of certainty about the counselor's role than schools with lesser density.

Density of communication. The maximum exchange of conversation in a group, of course, would be attained by every person talking as often as possible to every other member of the group; in other words, by every communication link being fully exploited. In characterizing the density of a school's communication about guidance and counseling, then, we are not interested in the frequency of communication by the average person as we were in Chapter VII, but rather in the frequency of communication between the average pair of persons -- the frequency carried by the average link. Consequently, we indexed the density of communication in each school by adding together the codes for frequency of communication for every link and dividing by the number of links -- by $N(N - 1)/2$ where N is the number of persons sampled in the school. The numbers used to designate frequency of communication about guidance and testing in each link were those given in Table VIII-1. The means taken in terms of the codes given in Table VIII-1 were divided by two, however, so as to give a result which could be read as the number of conversations per week about guidance and testing taking place within the "average pair" of persons in the school. These figures are given for the fall of 1959 for all schools in Table IX-3.

The communication densities shown in Table IX-3 were distributed against school mean changes in certainty (Tables IX-1 and IX-2, Column 4) with the results shown in Table IX-4, which includes the 20 schools still having SIPs in 1960. The one-tailed probability for the expected role

__Table IX-3__. Mean number of conversations (based on pairs of persons) per week about guidance and testing in fall 1959, by school.

School No.	Mean conversations	School No.	Mean conversations	School No.	Mean conversations
531	.86	526	.60	463	.47
604	.79	117	.56	600	.46
281	.73	280	.56	018	.42
602	.72	538	.54	188	.42
274	.69	091	.52	177	.40
488	.67	601	.51	244	.40
153	.66	343	.49	495	.40
264	.64	484	.49	430	.39
603	.63	415	.47	301	.38
				257	.15

__Table IX-4__. Relation between communication density in the school and increase of certainty about the counselor's role.

Communication density	Increase in certainty on expected role			Increase in certainty on appropriate role		
	Below median	Above median	Total	Below median	Above median	Total
Above median	2	8	10	3	7	10
Below median	8	2	10	7	3	10
Total	10	10	20	10	10	20
	Pr = .012			Pr < .025		

shown in the table was taken from Finney's[*] tables. The corners test[**] gave the probability for the relation in the appropriate role. The positive associations between communication density and increase in certainty occurring both for the expected role and the appropriate role support the hypothesis and suggest that the communication variable will be useful in seeking evidence of the influence of the SIP.

Communication with the SIP

We now turn our attention to the communication in the school which centered upon the SIP. By the use of the 1959 sociograms in Appendix L, we characterized every respondent by the ease with which ideas could flow between the SIP and himself. In choosing categories for this classification, we again (as in Chapter VIII) made use of the hypothesis that communication flows more easily between two persons who are members of a clique (i.e., a group completely interconnected by communication links) than between two persons not members of a clique. We built our classification scheme, therefore, on two criteria: (1) the minimum number of links intervening between the respondent and the SIP, and (2) whether the SIP was a member of a 4-or-more-person clique. Using these criteria, we more or less arbitrarily chose the following categories. Code numerals are shown for the categories and will be used in the ensuing discussion to save space.

Categories and code numbers for communication linkage to the SIP

1 Respondent connected in one link to an SIP who is himself a member of a 4-or-more-person clique.

2 Respondent connected in one link to an SIP who is not a member of a 4-or-more-person clique.

3 Respondent connected in two steps to an SIP, the first step being a link to a member of the SIP's 4-or-more-person clique.

4 Respondent connected in two steps to an SIP, but not through a member of the SIP's 4-or-more-person clique.

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[*] D. J. Finney. The Fisher-Yates test of significance in 2 x 2 contingency tables. Biometrika, 1948, 35 (Parts I and II), 145-156. These tables are also reproduced in Siegel, op. cit.

[**] Mood, op.cit.

5 Respondent on a path to the SIP but more than two steps removed.

6 Respondent not on a path to the SIP. (A few of these respondents were in very small networks unconnected to the main network in the school; most, however, were isolates unconnected to anyone.)

In establishing the above categories, links were defined as at least one conversation per week about guidance and testing, as explained in Chapter VIII.

Certainty at a given time and communication with the SIP

The next section will present findings on the relation between increase in certainty about the SIP's role and communication linkage to the SIP; it will illuminate those results, however, to look at the relation between certainty and linkage to the SIP at each end of the change period. No hypotheses were stated in advance about this relation because we were not willing to estimate how quickly communication effects would occur after the re-entry of the SIP into the school, albeit in a new role, in the fall of 1959. Data collection in the sample schools took place over a period ranging from the week following the opening of the fall semester to the first week in November. Furthermore, two of the SIPs did not return to their pre-institute schools but entered new schools; this too, we thought, would reduce the likelihood of communication effects being visible in the fall 1959 data.

To see what might turn up, nevertheless, we laid out contingency tables with linkage to the SIP down the side and certainty scores across the top. Table IX-5 shows the results. A significant association appeared in fall 1959 and remained (or perhaps grew stronger) in fall 1960 both for the expected role and for the appropriate role. In each sub-table, frequencies are disproportionally high in the high certainty scores for one-step connection with the SIP and in the low certainty scores for isolation from the SIP. Although the fact is not shown in Table IX-5, these cells contained the most disproportionally high frequencies in each table. The shape of the association between these two cells, however, seems strange and would never have been predicted. The pattern of the disproportionality in the central part of the table may not be significant, however, and with this

Table IX-5. Relations among communication linkage with SIP in 1959, certainty on counselor's role in 1959, and certainty on counselor's role in 1960. Underlined frequencies are greater than expected frequencies based on the marginal totals.

Communication with SIP (see text for code)	Certainty in fall 1959 on expected role			
	0-30	31-37	38-39	Total
1-2	23	29	44	96
3	20	25	12	57
4	18	19	18	55
5	12	21	19	52
6	33	22	12	67
Total	106	116	105	N = 327

Chi-square = 24.21;
P < .005 for 8 df.

Monotonicity index (Smith) = .167;
P < .001.

	Certainty in fall 1960 on expected role			
	0-28	29-36	37-39	
1-2	18	32	46	96
3	21	15	21	57
4	15	19	21	55
5	15	19	18	52
6	35	19	13	67
Total	104	104	119	N = 327

Chi-square = 15.09;
P < .06 for 8 df.

Monotonicity index = .214;
P < .001.

	Certainty in fall 1959 on appropriate role			
	0-28	29-35	36-39	
1-2	19	36	41	96
3	[illegible]	[illegible]	[illegible]	[illegible]
4	13	18	22	53
5	16	15	21	52
6	30	16	12	58
Total	101	105	110	N = 316

Chi-square = 25.65;
P < .005 for 8 df.

Monotonicity index = .159;
P < .003.

	Certainty in fall 1960 on appropriate role			
	0-29	30-36	37-39	
1-2	23	35	38	96
3	24	16	17	57
4	18	15	20	53
5	14	25	13	52
6	34	19	5	58
Total	113	110	93	N = 316

Chi-square = 32.38;
P < .001 for 8 df.

Monotonicity index = .208;
P < .001.

interpretation in mind each sub-table was tested for monotonicity.* As can be seen in Table IX-5, the indices and probability values support the hypothesis of a monotonic trend through each of the sub-tables.

These results support the hypothesis that easy communication access to the SIP was associated with greater certainty about his role, both in regard to what were his present duties and in regard to his ideal duties.

A counter-interpretation might be suggested. Perhaps it was not contact with the SIP which gave more certainty about his role, but rather contact with persons closely connected with the SIP, such as the princiapl and other counselors, who themselves issued authoritative information about the SIP. The results of Table IX-5, however, argue against this alternative. Code 3 in the table contains those cases where the respondent was not directly connected to the SIP, but was directly connected to some member of a 4-or-more-person clique to which the SIP belonged; in none of the sub-tables did these persons tend to show high certainty.

Interaction. Because we wanted to examine change in certainty from fall 1959 to fall 1960 within each category of linkage to the SIP, we first analyzed the three variables of Table IX-5 to see whether there might be an interaction-- whether the relation between certainty in fall 1959 and in 1960 might differ with the SIP-linkage category. We used the method of Lancaster** to test for interaction. The net interaction chi-square for the expected role was 23.07, for which the probability with 16 df was greater than .10; for the appropriate role the net chi-square was 23.91 with a probability value greater than .05. Given this result, we decided to proceed with the change analysis using the correction for regression based on the entire sample of respondents.

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*J. E. K. Smith. On the analysis of contingency tables with ordered classifications. Cambridge, Mass.: Lincoln Lab., Mass. Inst. Technol., 1956. (Mimeo.)

**H. O. Lancaster. Complex contingency tables treated by the partition of chi-square. J. roy. statist. Soc., Series B, 1951, 13, 242-249.

Hypothesis 3 -- concerning communication with the SIP and increase of faculty certainty

We come now to the hypothesis that certainty about the SIP's role increases more among faculty members who have close communication connections with the SIP than among faculty with more distant connections. Change in certainty, corrected for regression fall to fall, was computed for each individual in respect to the expected role and the appropriate role of the SIP. Mean changes in certainty were then computed for each group of respondents classified by communication linkage to the SIP. The prediction was that the rank order of the mean changes would tend toward the rank order of the communication codes. The results are shown in Table IX-6.

Table IX-6 shows two analyses in parallel columns; in the first analysis every communication category is used and in the second the first two categories (both indicating a one-step connection with the SIP) are combined. Within both the expected and the appropriate role, the prediction was supported beyond the .95 level in one analysis or the other. In a third analysis, the changes in certainty of all persons in the first five categories (those having some communication path to the SIP) were tested against the changes in category 6 (those persons isolated from the SIP) by the t-test. The result was significant beyond the .99 level (one-tailed) for the expected role, but not significant for the appropriate role.

Though the taus measuring the success of the rank-order prediction are not as high as one might wish, the significance of the taus together with the t-tests just mentioned provide clear evidence that changes in certainty were associated positively with closeness of communication-connection with the SIP. The degree to which connection to the SIP made a difference in certainty increase is particularly impressive in the case of the expected role, where the communication variable separated the respondents into groups having mean certainty increases differing by as much as 6.26 items on a scale of 39.

These results constitute strong evidence that the SIPs, overall, did have some influence on opinion-formation in their faculties. It could not

Table IX-6. Changes in certainty about the counselor's role on the part of respondents having closer and more distant communication connections to the SIP.

EXPECTED ROLE

Communication with SIP (see page 175 for code).	N	Using all communication codes		Combining communication codes 1 and 2	
		Mean change in cert'nty	Rank of change	Mean change in cert'nty	Rank of change
1	79	.38	5		
2	17	2.39	1	.74	2
3	57	.82	2	.82	1
4	53	.63	3	.63	3
5	49	.60	4	.60	4
6	67	-3.87	6	-3.87	5
Tau with communication code			.47		.80
Pr from Table Q of Siegel, _op_. _cit_.			.136		.042

APPROPRIATE ROLE

Communication with SIP (see page 175 for code).	N	Mean change in cert'nty	Rank of change	Mean change in cert'nty	Rank of change
1	77	1.66	1		
2	16	1.53	2	1.64	1
3	57	.89	4	.89	3
4	51	.55	5	.55	4
5	53	1.11	3	1.11	2
6	67	-.63	6	-.63	5
Tau with communication code			.73		.60
Pr from Table Q of Siegel, _op_. _cit_.			.028		.117

be that those connected to any random person would show more increase of certainty than those not connected to him. Finding that this relation holds for connections to the SIP is a strong argument that something about the SIP was influential in causing the certainty increase. Again, it might be argued that being in contact with the SIP's _clique_ -- frequently containing other conselors -- was what caused the increase of certainty. The data, however, lend no support to this alternative interpretation. In the expected role, the mean increase in certainty of those connected to SIPs who were members of cliques (code 1) was much lower than the mean of those connected to SIPs who were not members of cliques (code 2). In respect to the appropriate role, the code 1 mean, although a little higher than the code 2 mean, is clearly not significantly so.

In brief, we have given evidence that the SIPs, as a group, succeeded in accelerating the formation of opinion about the counseling role to a positive degree among those persons with whom they had frequent communication of a relevant kind. This result is gratifying both from a theoretical and a practical standpoint. However, two considerations should restrain any premature celebration.

First is the matter of the general level of influence of the SIPs. Taking all respondents into account, Table IX-1 showed that there was no increase in certainty worth mentioniong in respect to the expected role and Table IX-2 showed an increase in certainty for the appropriate role of about three-quarters of an item out of 39, on the average. The overall changes in certainty, surely, were of no practical importance. On the evidence of Tables IX-1 and IX-2, training one member of a faculty in a summer institute holds no promise for sharpening the knowledge and opinion of the faculty as a whole about the counselor's role.

It is true that we succeeded in locating groups of respondents whose certainty about the counselor's role was positively increased; namely, those in comparatively close communication contact with the SIP. Though this achievement may make us proud of our measurement skill, it does not add anything to the armamentarium of those who wish to improve counseling services in the schools. It is no surprise to find that the returned trainee influenced somebody -- nor that that somebody was likely to be someone to whom he talked relatively more frequently. Furthermore, it should be remembered that although the respondents closely connected to the SIPs increased their certainty about the counselor's role, the other respondents were not unaffected; on the contrary, the respondents isolated from the SIP were left less certain after the year's interval. (As an antidote to our gloom at this point, however, we may remind ourselves that the differential influence of the SIP was not influence about some merely fortuitous topic, but influence in regard to an important technical and professional topic -- the present practice and the sometime goals for the counselor in the school.)

The second qualification of our results of this section which should be called to mind is that the results deal only with increase of certainty and not with changes of opinion from one direction to another. An analysis of changes of opinion over the year's time toward the opinion of the SIP will be given in the next section.

Communication and Increase of Agreement with the SIP

In previous sections we have dealt with increases of certainty on the part of the respondents -- increases in the number of items of the Counselor's Role Checklist for which the respondent's answers changed from "uncertain" to "yes" or "no" over a year's interval. In this section we shall take into account answers which changed from any of the three possible answers to any other, and our criterion for direction of change will be the answers given by the SIP. Both in the fall of 1959 and in the fall of 1960, the answers given by each respondent to the Counselor's Role Checklist were compared, item by item, with the answers given by the SIP in the respondent's school. A count was obtained of the number of items on which each respondent's answer was the same as the SIP's. By subtracting the 1959 count from the 1960 count, we obtained a score representing increase in agreement with the SIP.

The respondent was considered to agree with the SIP if he gave the same answer as the SIP, regardless of what the SIP's answer was -- yes, no, or uncertain. This means that the index of increase in agreement encompasses both changes in opinion and changes of certainty. However, unlike the changes in certainty discussed in previous sections, changes in certainty are not counted as changes toward greater agreement with the SIP unless the change brings the respondent to give the same answer given by the SIP.

We chose only the appropriate role for this part of our analysis because we thought the appropriate role, being more a matter of opinion than the expected role, would be more susceptible to influence from the SIP, and because the SIPs were generally higher in certainty on the former than on the latter. In Table IX-2 the mean certainty for the SIPs was seen to be

35.4 out of 39, and this mean increased in 1960 by 2.28 items. Consequently, increases in agreement with the SIP were predominantly changes from "uncertain" to "yes" or "no" and changes from "yes" to "no" or vice versa; increases were very little contaminated by changes from "yes" or "no" to "uncertain."

The mean increases in agreement with the SIP in respect to his appropriate role are shown in Table IX-7. The mean change for the total sample (.010) is insignificant; the mean changes of the schools scatter on both sides of zero. At a glance, the distribution of school means in Table IX-7 seems as if it might be random. However, just as in the case of Table IX-1, the differences between schools may show trends under further analysis. We shall show later in the chapter how the data of Table IX-7 fit in with other variables.

Table IX-7. Mean changes in agreement with the SIP, fall 1959 to fall 1960, on the appropriate counselor's role, by school.

School No.	N	Mean increase in agreement with SIP
538	7	6.29
415	11	5.64
280	21	4.29
244	12	3.83
600	10	3.20
274	15	2.87
495	21	2.52
018	26	2.46
463	12	.92
188	15	.27
301	18	00
430	21	- .43
601	15	-1.20
484	13	-1.69
264	16	-2.31
257	51	-3.92
604	7	-4.00
602	6	-4.83
343	9	-5.67
603	9	-5.78
Total	315	.010

Hypothesis 4 -- concerning communication with the SIP and increase of agreement with the SIP

We admitted earlier that communication does not necessarily lead to agreement on the matter at hand; it sometimes leads to more certainty that disagreement is serious. For heuristic purposes, nevertheless, we tested the hypothesis that agreement with the SIP about his appropriate role increases more among faculty members who have close communication connections with the SIP than among faculty with more distant connections. The proper role of the counselor is not, after all, completely a matter of free opinion if one takes into consideration the professional standards in the field. But even though the professional standards (supposing that the respondents were sufficiently aware of them) might bring some pressure to agree with the SIP, the hypothesis glossed over many contrary factors, and the results, shown in Table IX-8, should be taken as exploratory.

Table IX-8. Mean changes in agreement with the SIP, fall 1959 to fall 1960, on the appropriate counselor's role, by respondents having closer and more distant communication connections to the SIP.

Communication with SIP (see page 175 for code).	N	Mean change in agreem't	Rank of change
1	78	1.28	1
2	16	.31	3
3	53	- .11	4
4	53	.92	2
5	53	-2.245	6
6	62	- .42	5
Tau with communication code			.60
Pr from Table Q of Siegel, *op. cit.*			.068

The random probability of the rank-order correlation (tau) shown in Table IX-8 only approaches the customary significance levels. Taken by itself, this result would be dubious. In combination with previous results, however, it seems sufficiently consistent to encourage us to look further into the data on the appropriate role. This we do, with a new kind of index of SIP influence, in the next section.

The Influence of the SIP on Faculty Perception of the Appropriate Role

Our evidence for influence on the part of the SIP has been up to this point indirect, the best of it resting on changes associated with communication links to the SIP. Without on-the-spot observations of sequential changes over short periods of time, our evidence for the influence of the SIP must rest on inferences taken from measurements at widely separated times. Dissatisfied with the long leaps of logic required by the evidence so far presented, we undertook to construct a somewhat more direct measure of influence, one which could be associated with each individual respondent.

The index of SIP influence

The rationale for our index of influence is as follows. If A and B hold a conversation and A maintains the same opinions afterward that he held before, but B changes some of his opinions which were previously opposed to A's so that they now agree with A, then this is evidence that A influenced B. In terms of the Counselor's Role Checklist, this means that we would count the number of items on which the SIP was stable from fall 1959 to fall 1960 -- on which he gave the same answers at the two times. Of these items, we would then note with how many of the SIP's answers the respondent agreed in 1959 and with how many in 1960. The net increase would be the measure of the SIP's influence on the respondent. But of course, the respondent might influence the SIP. This means that we must also count the number of items on which the respondent was stable from 1959 to 1960, and the number of these answers with which the SIP agreed at the two times. Our final index of SIP influence was obtained by subtracting the net increase of the SIP's agreement with the respondent's stable items from the net increase of the respondent's agreement with the SIP's stable items. In other words, the index is a measure of the excess of the influence of the SIP on the respondent over the respondent's influence on the SIP. It is positive when the balance is in favor of the SIP.* A more precise account of the logic of this measure is to be found in Appendix Q.

The index of SIP influence was applied to the appropriate role. After an index of SIP influence was computed for each respondent, the mean for the sample within each school was obtained, giving an overall measure of the net influence of the SIP within his school in regard to what ought to be the duties of his position. These means, along with the two-tailed probabilities of their difference from zero ascertained by the t-test, are given in Table IX-9.

The result for all schools taken as a group shows no significant net influence on the part of our SIPs as a group. Some schools, however, showed significant mean influence scores; three schools had significantly positive indices, indicating influence on the faculty by the SIP, and two had significantly negative indices indicating influence by the faculty on the SIP. In other words, although the perceptions of the appropriate role of the counselor in the faculties taken as a single group were not moved significantly either toward or away from the views of the SIPs, there were some schools in which the SIPs were exceptionally successful in influencing the faculties and some in which the faculties were notably successful in influencing the SIPs. This conclusion is attested not only by the probabilities shown in Table IX-9, but also by the following analysis of variance:

	Sums of squares	df	Mean squares	F
Between means:	2,218.68	19	116.77	F = 116.77/29.86 = 3.91
Within schools:	8,926.89	299	29.86	$F_{.995}(19,299) = 2.00$
Total	11,145.57	318		

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*The index grows more positive when the respondent is in agreement with more of the SIP's stable items afterward than before or when the SIP is in agreement with fewer of the respondent's stable items afterward than before; it grows more negative when the respondent is in agreement with fewer of the SIP's stable items afterward than before or when the SIP is in agreement with more of the respondent's stable items afterward than before.

Table IX-9. Mean indices of SIP influence in regard to the appropriate counselor's role. Probabilities not shown were greater than .05, two-tailed.

School No.	N	Mean index	Pr by t-test
603	10	8.00	.001
274	15	4.67	.001
343	9	4.00	
538	7	3.86	
602	6	3.00	
257	51	2.16	.01
601	15	2.07	
188	15	1.33	
301	18	.83	
280	22	.64	
430	22	.14	
415	11	.09	
264	16	- .75	
463	12	- .92	
018	26	-1.77	
244	13	-2.15	
600	10	-2.60	
484	13	-2.85	.02
495	21	-3.14	.01
604	7	-4.57	
Total	319	.52	NS

Some characterizations of individual schools

Let us look more closely at some of the exceptional schools in Table IX-9, recalling some of the other information about them which has been presented in this chapter. Postponing School 603 for the moment, let us look first at School 274, the second from the top in degree of SIP influence concerning the appropriate counselor's role. From other tables in this chapter, we have the following information:

Table IX-2: this faculty showed more increase than any other in certainty about the appropriate role.
Table IX-3: very near the top in communication density.
Table IX-7: a positive increase in agreement with the SIP on the appropriate role.

This information gives a picture of a school in which a great amount of communication took place about guidance and testing and in which the SIP succeeded in obtaining greater agreement from the faculty, on the average, with his own preferences about his appropriate role. This is the school which fell at the extreme "northeast" in Figure 1 -- the school in which we suggested that the bustle of research may have sensitized the faculty to influence.

A contrary picture appears for School 495, which is almost at the bottom of Table IX-9 and for which we have the following additional information:

Table IX-2: some increase in certainty by the faculty.
Table IX-3: low communication density.
Table IX-7: some increase in agreement with the SIP.

Here the picture seems to be one of the faculty persuading the SIP to see things more their way.

School 484, also near the bottom of Table IX-9, is interesting because its SIP showed a greater increase in certainty than any other. Here is further information:

Table IX-2: very little change in certainty on the part of the faculty, but great increase in certainty by the SIP.
Table IX-3: moderately low communication density.
Table IX-7: some decrease in agreement with the SIP.

How could the faculty influence the SIP toward agreement with them (Table IX-9) if they end in less overall agreement with him than before (Table OX-7)? Here we must remember that the index of SIP influence is based on items which were stable -- either for the SIP or for the other faculty member being considered. If the SIP agreed with other faculty members on only a few of their stable items in 1959, he could agree with a few more of them in 1960 (causing the influence index to become more negative) even though the total number of items in agreement decreased. Add to this the facts that the SIP was stable on 26 items (see Table IX-10) and that he changed 8.54 answers (corrected for regression) from "uncertain" to one of the certain answers. Given this information, it seems likely that the SIP adopted some of the views of the faculty on items where he had previously been uncertain, but that on the whole the faculty and the SIP grew somewhat farther apart, either because some of the SIP's items changed from uncertainty to disagreement or because faculty members changed some of their items to disagree with the SIP, or both. This may have been a situation in which faculty and SIP had certain recognized areas of agreement and certain areas of disagreement. On the other hand, it could have been a situation where the SIP had the feeling that he was doing his best to see things the faculty's way but never catching up.

Table IX-10. Stability of SIPs on appropriate counselor's role: number of of items (of 39) given same answers in fall 1959 and fall 1960.

School No.	SIP stability	School No.	SIP stability
264	34	018	26
301	33	343	26
538	32	484	26
430	31	600	25
415	30	602	25
463	29	280	24
495	29	601	23
188	27	603	20
274	27	257	19
604	27	244	17

Schools 603 and 257 have even more complex patterns than 484. For School 603 we have:

Table IX-9: the highest SIP influence score.
Table IX-2: a moderate increase of faculty certainty, but a considerable decrease of SIP certainty.
Table IX-3: moderate communication density.
Table IX-7: the greatest decrease of agreement with the SIP.
Table IX-10: very low stability on the part of the SIP.

Here again, the influence index shows that faculty and SIP came together on some items, but the agreement-with-SIP index shows that, on the whole, faculty and SIP diverged. When we note that the SIP had very low stability, we know that the influence index did not result to any large extent from the faculty moving items into agreement with the SIP's stable items, but rather from the SIP moving items out of agreement with the faculty's stable items. When we note in addition that the faculty had a moderate increase of certainty while the SIP had a considerable decrease in certainty, the picture arises of a faculty gradually settling into its opinions without coming any closer to the opinions of the SIP, and an SIP rapidly departing from the opinions of the faculty, at least to the extent of becoming uncertain on many more items than he once was. To all this let us add the fact that the communication density increased considerably during the year (see Appendix L), rising from .63 to 1.50. We now have a picture of a school in which the SIP showed a growing independence of the views of the faculty about what he should do, and ended in greater disagreement with them than he was before; at the same time, communication throughout the school swelled. This suggests strife and argument, still far from resolved in 1960, though receiving wide participation. In fact, in the fall of 1959 this school was experiencing sharp disagreements about the place of the counseling services in the organization of the school. The division of opinion was so severe that the communication channels between the partisans of the oppowing views had become severely limited; only two liaison persons remained at the one-conversation-per-week level through whom contact could be maintained (Appendix L). Since communication increased and spread during the year, however, the tension was not resolved by means of mutual isolation; rather, the argument seems to have been resumed.

For School 257, Table IX-9 shows moderate positive influence on the part of the SIP. We also have:

Table IX-2: no change in certainty by the faculty; a moderate increase in certainty by the SIP.
Table IX-3: the lowest communication density in 1959.
Table IX-7: some decrease in agreement with the SIP.
Table IX-10: very low stability on the part of the SIP.

This school shows much the same pattern as School 603; this school also showed an increase in communication density during the year, rising from .15 to .37. The SIP's burgeoning of communication was especially marked. School 600 falls into a similar pattern.

The tabular information for School 301 is as follows:

Table IX-2: little change in certainty either by faculty or by the SIP.
Table IX-3: next to lowest in communication density.
Table IX-7: zero change in agreement with the SIP.
Table IX-9: very little influence.
Table IX-10: SIP stability next to highest.

This school was one in which communication about guidance and testing was dominated by the SIP and one other counselor; these two stood out far beyond any other member of the faculty as centers of communication. In 1959 there were only two 4-person cliques in the school, of which all the members were administrators, counselors, or department heads. The two centers of communication were also members of these cliques; their membership seemed to be constrained by official expectation. Outside of these small official cliques, almost all the remaining communication went directly to one of the two highly central counselors, or in the case of an occasional person to both. The picture was much the same in 1960. By that time there were three 4-person cliques, still composed of the two central counselors along with other counselors, administrators, and department heads, except for one teacher.* When we add to this picture the fact that in 1959 the principal had a communication link (as defined in Chapter VIII) to the other counselor but not to the SIP, the suggestion of competitiveness is strong; even though the communication density increased during the year from .38 to .59, cliques containing counselors and a number of teachers, so common in other schools, did not form. The very small changes in Tables IX-2, 7, and 9 suggest that whatever tug-of war was going on, it was still at a dead heat in 1960. The impression of a duel going on is heightened by the evidence that the faculty seems to have become increasingly confused about what actions they could anticipate on the part of the SIP; this school showed the greatest decrease (Table IX-1) in faculty certainty about the expected role of the counselor.

The school at the top of the list for increase of agreement with the SIP (Table IX-7) was School 538. The other tabular information is as follows:

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* Graphic data for the foregoing statements appear in Appendix L.

Table IX-1: second from the top on faculty increase of certainty about the expected role.
Table IX-2: moderate increases of certainty on the part of faculty and SIP about the appropriate role.
Table IX-3: moderate communication density (which increased from .54 in 1959 to .94 in 1960).
Table IX-9: fourth from the top in SIP influence.
Table IX-10: third from the top on SIP stability.

To this information we can add that the SIP had more communication connections to others than any other member of the school (Appendix L), that there was a direct communication link between the SIP and the principal, and that the SIP's influence score in respect to the principal was 6 in comparison to the school mean of 3.86. Putting all this together, we have a picture of an SIP with firm convictions about what ought to be done by someone in his position, who spoke frequently with other members of the faculty including the principal about guidance and testing, and who succeeded in bringing faculty and principal closer to his views.

Some months after the completion of data-collection in School 538, an interview was held with the SIP. While avoiding giving any hints about our findings, the interviewer asked the SIP what influence he felt he might have had during the year of the study. The SIP reported that he felt that the faculty had generally come into closer agreement with him, and that this was especially true of the principal, who had been the most frequent visitor among those who came to discuss guidance and testing. Finally, the SIP reported that the principal, whose previous training had been in one of the very respectable academic fields, was now setting out to acquire a master's degree in guidance.

The reasonableness with which these data fit with each other and with anecdotal evidence heightens our confidence in their reliability and validity.

Let us briefly recapitulate our chief findings so far in regard to the influence of the SIP. First, taking the schools as a group, there was no important overall increase of certainty about the counselor's role. However, schools with greater densities of communication about guidance and testing increased their certainty more than schools with lower densities, both in respect to the expected role and the appropriate role. Furthermore, respondents in closer communication with the SIP increased their certainty more than those in more distant communication. Next, the schools as a whole showed no increase in agreement with the SIP about the appropriate counselor's role, although there was some weak evidence (p = .068) that respondents in closer communication with the SIP came into closer agreement with him than those farther away. Finally, using an index of influence which could be associated directly with each respondent in his relation to the SIP, we have seen in this section that the SIPs as a group showed no influence nor evidence of being influenced. There was evidence, however, that some SIPs were successful in influencing their faculties, and some were markedly influenced by their faculties. In brief, the SIPs were influential in sharpening the opinions of their faculties, but the judgment which resulted went against them about as often as with them.

The Influence of the SIP
within Respondent Groups and Communication Categories

Having looked at the SIP influence scores within schools. we next looked at them within other groupings. within administrators, counselors, and teachers and also within the groups defined by readiness of communication access to the SIP. Mean SIP influence scores were computed not only for each of these groups, but for the cross-classifications of these two kinds of groups. The results are shown in Table IX-11, where the means for the cross-classification sub-groups appear in the body of the table along with the number of respondents in each sub-group, and the means and Ns for the main groups appear along the right-hand and bottom borders of the table.

In reading the table, the caution should be kept in mind that the numbers of respondents in many of the cells are very small, running down as low as two; the means in these cells are no doubt very unreliable estimates of what the means would have been had the numbers of respondents been greater. Another kind of caution is also important in comparing the results of this section with the results of earlier sections. In the first sections of the chapter we dealt with increases of certainty -- regardless of whether certainty took the form of yes or no. In a later section we dealt with increases of agreement between the SIP and others -- regardless of which person had changed the most items and without distinguishing between stable and unstable items. In this section we are dealing with

Table IX-11. Index of SIP influence in respect to appropriate counselor's role: means for respondent groups and communication groups.

Respondent group		Communication with SIP (see page 175 for code)						
		1	2	3	4	5	6	Total
Administrators								
	N	18	2	7	4	2	2	35
	Mean	.33	1.00	.56	-5.50	6.50	1.50	.17
Counselors and deans								
	N	9	2	3	6	6	3	29
	Mean	-2.00	-10.00	- .67	-1.67	1.83	3.00	-1.03
Teachers, department heads, and librarians								
	N	52	13	43	44	45	58	255
	Mean	- .42	2.08	- .74	1.68	1.27	1.41	.73
Totals:	N	79	17	53	54	53	63	319
	Mean	- .44	.53	- .55	.78	1.53	1.49	.52
Rank of mean:		5	4	6	3	1	2	

direction of change in the sense of noting which person changed the most items into agreement (or out of it) with the other person's stable items. An index of SIP influence near zero indicates little or no increase of agreement between the SIP and the other respondent. High negative and high positive indices both represent increases of agreement. A negative index means either that the SIP moved more of his answers than previously into agreement with the respondent's stable items or that the respondent moved more of his answers than previously out of agreement with the SIP's stable answers, or both; a positive index represents converse movements of answers.

Let us now return to Table IX-11 and look first at the means for respondent groups listed at the extreme right of the table. Here we see that the mean influence index for counselors was negative, and positive for others. This seems reasonable; the SIP should have a more difficult time influencing his fellow experts than others. In fact, as we anticipated at the outset, the negative outcome argues that he was more influenced by them than vice versa. However, we can only take this outcome as suggestive, because an anlysis of variance applied to these means was not significant.

An analysis of variance was also applied to the means for the communication groups and was likewise non-significant. However, this was not the best test of the relation we had in mind because it did not take into account the order in which the means fell.

Hypothesis 5 --
concerning SIP influence and communication with the SIP

Again, we postulated the necessity for communication if one person is to affect another. However, we did not wish to venture which direction influence would flow. In fact, the possibility existed that influence would flow *both* ways within each communication category, leaving the mean influence index near zero regardless of closeness of communication with the SIP. These hazards notwithstanding, we set forth the hypothesis that *greater influence (either positive or negative) occurs between the SIP and others when the others are in closer communication with the SIP than when they are in more distant communication with him.*

If our SIPs were to show generally *positive* influence on their colleagues, and if our hypothesis were to hold, then the means for communication groups in Table IX-11 would run from more highly positive at the left to less so at the right. The result, indicated by the line for the ranks of the means, is obviously to the contrary. However, neither is the rank order correlation (tau) of the means with the communication codes significantly negative.

There seems little to be learned from Table IX-11. The best we can say for the analysis is that we do find a difference in mean influence score when we split the communication codes down the middle; dividing the respondents into those with communication codes 1-3 and those with codes 4-6, we find a mean influence score of -0.37 for the former and 1.28 for the latter -- a difference significant beyond .98 by the t-test (two-tailed). This is evidence that communication closeness made some kind of difference to the influence process, but it is not easy to intepret. One is confused, for example, by the fact that a mean influence score of 1.49 appears for communication code No. 6, which labels those persons most isolated from the SIP.

A simple analysis should always be tried before a complicated one, but the indecisiveness of Table IX-11 is not surprising. An analysis of interaction processes in groups would hardly be competent if it did not somehow take into account the differences which might exist between groups and surely one can expect school faculties to differ from one another in their conduciveness to influence. Accordingly, we next undertook an anlysis using z-scores.

__SIP__ __influence__ __z-scores__. Within each school, the mean and standard deviation of the SIP influence scores were determined. The algebraic deviation of each respondent's influence score from the school mean was then divided by the school's standard deviation, giving each respondent a new influence score indicating his deviation above or below the mean of his colleagues in standard deviation units reflecting the variability within the school. The results are shown in Table IX-12, which is laid out in the same way as Table IX-11; the means in Table IX-12, however, are means of z-scores instead of raw influence scores.

__Table__ __IX-12__. SIP influence z-scores in respect to appropriate counselor's role: means for respondent groups and communication groups.

Respondent group		Communication with SIP (see page 175 for code) 1	2	3	4	5	6	Total
Administrators								
	N	18	2	7	4	2	2	35
	Mean	- .10	- .03	.04	- .46	.12	.24	- .08
Counselors and deans								
	N	9	2	3	6	6	3	29
	Mean	- .46	-1.42	- .11	- .18	- .28	.18	- .33
Teachers, department heads, and librarians								
	N	52	13	43	44	45	57	254
	Mean	- .96	- .20	- .14	.27	.20	.05	.05
Totals:	N	79	17	53	54	53	62	318
	Mean	- .12	- .32	- .11	.17	.14	.06	.00
Rank of mean:		5	6	4	1	2	3	
Absolute deviation of mean from mean of communication code 6:		.18	.38	.17	.11	.08		
Rank of absolute deviation from communication code 6:		2	1	3	4	5		

The mean influence score (z-score) in Table IX-12 for communication code No. 6 seems much more reasonable than the corresponding mean in Table IX-11, since this mean in Table IX-12 is closer to zero than any of the other means for communication groups. There are two ways, however, in which Table IX-12 is similar to Table IX-11. The means for respondent groups (last column at right) are related to the grand mean in the same way as were the corresponding means in Table IX-11. The similarity extends further; the analysis of variance among the means in Table IX-12 was, like that in Table IX-11, non-significant. The division of the respondents into two groups by communication code also gave the same result as that for the previous table. The mean influence z-score for respondents in codes 1-3 was -0.14 and 0.12 for respondents in codes 4-6, a difference significant beyond .975 by the t-test (two-tailed).

Let us now see what kind of support for our hypothesis can be found in Table IX-12. A glance at the table tells us that the hypothesis will not be substantiated by a simple progression of magnitudes from one side of the table to the other; but the hypothesis does not insist upon such a simple relation. The hypothesis calls for greater measures of influence _in either direction_ to be found among the closer communication categories.

However, before turning immediately to absolute values of means (instead of algebraic), we should recall the nature of the scores which we entered in Table IX-12. They were z-scores; if one member of the faculty received a more negative score, some other member would receive a more positive. This would occur even though the second member were totally unaware all year that a colleague had taken over new duties. (To put it another way, a degree of freedom on the tabulation has been lost for each school represented in the table.) Following this manner of thinking, we shall obtain a fairer test of the hypothesis if we interpret the means in the table in terms of the respondents least likely to have been directly affected by the SIP. In brief, we shall use the respondents in communication category No. 6 (the "isolates") as a kind of control group; the mean influence scores in the other communication groups will be assessed with the mean in code 6 as a base-line.

Taking the mean (.06) of communication group No. 6 as the best available estimate of the z-score to be obtained by those whom the SIP has had least opportunity to influence, the deviations from this mean give the net influence in each of the remaining groups. Since we now wish to accept magnitudes of influence in either direction, we ignore the signs of the deviations and list only their absolute values. These absolute deviations from the code 6 mean are given near the bottom of Table IX-12.

Finally, we note the amount by which each successive absolute deviation departs from zero, and indicate the rank of the deviation accordingly. These ranks are given in the last line of the table. Our prediction was that the absolute deviations would be ordered in decreasing magnitude for categories of communication successively fartner from the SIP. The tau for the obtained rank-order correlation is .80 and the probability (one-tailed) is .042. This outcome, devious though it may be, supports Hypothesis 5.

As we mentioned earlier, there was no _a priori_ reason to expect that the influence within any one communication group would be preponderantly in one direction. The possibility of testing Hypothesis 5 in the manner we did existed only because of a general tendency for the SIPs to be more influenced by (rather than to influence more) those persons with whom they were in closer communication.* That is, had the SIPs been somewhat more influential with those closer to them in communication, there might have been about as many respondents influenced as influencing in each communication category and the category means would not have taken any particular order. In such a case the analysis might have had to turn to variances within groups instead of to means. We point out this complication because the test of the hypothesis should not be used to conclude that people are more likely to be _influenced by_ those with whom they are in close communication (or even that influence is more likely to turn predominantly in one direction among those in close communication) but only that influence is more likely to be stronger in one direction or another between more frequent communicators.

To the recapitulation given on pages 192 and 193 we have only two things to add. First, there was evidence in the data that the SIP and another member of the faculty influenced each other more, one way or the other, when the two were in closer communication. Second, if there was a hope that the Summer Institute participants would return to their schools to bring into being a new view of the role of the counselor, it was a hope taken in vain. Not only was the overall influence of the SIPs negligible; among the respondents whom the communication patterns gave the SIP the greatest opportunity to influence, the tendency was for the SIP to be more influenced than influential.

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*The present manner of test could also have been used, of course, had the SIPs been so influential as to invert the pattern, being successively _more_ influential (rather than less) with each successive communication group.

CHAPTER X

THE INFLUENCE OF THE NEW COUNSELOR:

THE DISSEMINATION OF TEST RESULTS

The last chapter discussed changes in faculty perceptions of the counselor's role and presented some evidence concerning the influence of the SIP on those changes. We also undertook an analysis of changes in the area of opinion about how widely tests should be used and how widely their results should be disseminated. This chapter reports our findings.

Table X-1 shows the questions about test dissemination which were used. These questions are of two kinds; the first six items ascertain how many characteristics of students are measured by means of tests; the remainder of the items probe how much effort is spent to convey test results meaningfully to teachers, parents, and students. The overall purpose of the 22 items is to index the receptiveness of the respondent or the school toward the wider application of test results.

Except for the addition of two items (9 and 14), the items in Table X-1 are the same items as those used in the Test Attitude Index (TAI) described in Chapter VII. There, however, the questions were asked in only one form: should these things be done? The TAI was a count of how many yes answers were given to this question. For the analysis to be presented in this chapter, not only was the "should" question asked, but also the question: are these things being done in your school? For the purposes of this chapter, no count was made of the yes answers. Instead, each respondent's answers were compared with the answers given by the SIP in his school, and a count made of the number of items on which the two persons agreed -- regardless of whether they agreed upon yes or no. Two indices of agreement resulted: one was a count of agreed items on what was being done in the school and the other a count of agreed items on what ought to be done in the school. These indices were called indices of agreement with

Table X-1. Test dissemination items. Note: In the form in which they were administered, these items appear as items 5, 7, 9, and 12 in Appendix D and as items 4, 5, 7, and 10 of Appendix E.

1. Keeping in mind that we are talking about standardized or published tests, are intelligence tests given in your school?
2. -- academic aptitude tests?
3. -- achievement tests in subject fields?
4. -- achievement tests in reading?
5. -- tests of interests?
6. -- tests of personality?
7. Is it the practice in your school that test scores are kept in an administration office and any teacher may look them up who wishes?
8. -- that scores are kept in a particular office and an appointed person will discuss the results with any teacher who asks?
9. -- that reports of results in some form are given to the teacher to give to the students, and the teacher can look them over before handing them out?
10. -- that copies of actual scores are given to the teacher for the teacher to keep?
11. -- that copies of test results in descriptive form (not actual scores) are given to the teacher for the teacher to keep?
12. -- that group meetings are held at which test results are explained and discussed with the teachers?
13. -- that conferences are scheduled with individual teachers to discuss test results?
14. -- that any parent who wishes may confer with the principal or guidance counselor and receive information about their children's performance on standardized tests? -- that is, that teachers do not give such information?
15. -- that any parent who wishes can confer with any teacher and receive such information?
16. -- that parents whose children present academic or disciplinary problems are called in for conference and test results are used as part of the conference?
17. -- that all parents are invited at certain times to come in and discuss their children's progress, and test scores are used as part of these conferences?
18. -- that test results (some or all) are sent to parents in written form?
19. -- that teachers discuss test results with students when the occasion arises or the need occurs (largely at the discretion of the teacher)?
20. -- that counselors confer at certain times with students individually and discuss their test results in the context of the student's future plans?
21. -- that students meet in groups, and an experienced teacher or counselor discusses test results and their meaning in general terms?
22. -- that test results are given to the student for him to take home?

the SIP on test dissemination, and were analyzed for changes over time in much the same way as were the indices of agreement on the counselor's role (Chapter IX). Each kind of index was computed for the spring 1960 and fall 1960 data. To measure change in the school, each respondent's spring agreement index was subtracted from his fall index; the mean for the school was the mean of these individual change scores.

The mean changes in agreement with the SIP on test dissemination, by schools, are shown in Table X-2. Only seventeen schools appear in this table. Respondents were not given indices of agreement with the SIP on test dissemination if they skipped any of the four items in the questionnaire from which the statements in Table X-1 were taken. This so reduced the number of respondents in one of the smaller schools that the school was dropped for lack of reliability. In two other schools, the SIPs skipped items, ruling out these two schools in their entirety.

Table X-2 shows that there was no overall significant change from spring to fall in agreement with the SIP on what was being done about the dissemination of test results. The increase in agreement of .70 in regard to what ought to be done, however, was significant beyond the .999 level. The distributions of school means in Table X-2 look very much like the distribution of mean agreement with the SIP on the counselor's appropriate role given in Table IX-7. However, the overall change in agreement with the SIP on what ought to be done in the school about the dissemination of test results was significant, while this was not so of the change in agreement with the SIP on what the SIP's duties ought to be. The overall increase of .70, of course, is not very great in practical terms.

The means in Table X-2 were distributed against the communication densities of the schools (Table IX-3). Using Spearman's rho, the rank-order correlation between communication density and increase of agreement with the SIP on what was being done was .563, which was significant beyond the .985 level. The relation between communication density and agreement on what ought to be done was not significant. There was also no significant relation between agreement with the SIP on what was being done and on what ought to be done about the dissemination of test results.

Table X-2. Mean changes in agreement with SIP, spring 1960 to fall, on test dissemination, by school.

What was being done			What ought to be done		
School No.	N	Mean incr. in agreem't	School No.	N	Mean incr. in agreem't
538	6	2.17	188	9	3.44
280	19	1.95	600	9	2.56
264	14	1.93	274	17	2.18
600	9	.67	257	49	1.96
484	13	.62	280	18	1.94
343	9	.33	264	14	1.86
415	13	.31	538	6	1.17
603	8	.25	415	13	.92
188	8	.13	601	12	.75
602	8	.13	603	8	.38
274	17	-.06	430	20	.15
463	12	-.08	343	9	-.44
601	12	-.33	602	8	-.50
018	23	-.57	301	16	-.69
301	16	-1.06	018	23	-.96
430	20	-1.40	484	13	-1.54
257	49	-2.16	463	12	-2.17
Total	260	- .29*		257	.70**

*t = 1.56, NS.
**t = 3.67, P <.001 (two tails).

Communication and Increase of Agreement with the SIP

As in Chapter IX, we tested the hypothesis that frequency of communication with the SIP would be related to increase in agreement with him. We again used the measure of closeness of communication with the SIP concerning guidance and testing explained in Chapter IX, and predicted that closeness of communication with the SIP is positively related to increase of agreement between SIP and respondent on the dissemination of test results. The outcome of this hypothesis is shown in Table X-3, where it can be seen that the hypothesis received no support. Neither in the case of what was being done nor in the case of what ought to be done was the rank order of the mean increases in agreement significantly related to the communication codes. Although a number of further analyses suggest themselves, time limitations prevented them from being carried out.

Table X-3. Mean changes in agreement with the SIP, spring 1960 to fall, on test dissemination, by closeness of communication with the SIP.

What was being done

	Communication code (see page 175 for explanation)						
	1	2	3	4	5	6	Total
N	71	12	46	44	42	45	260
Mean increase:	- .06	1.17	.02	.11	-1.24	- .89	- .29
Rank of mean increase:	4	1	3	2	6	5	

Tau of ranked mean increases with communication codes = .33. P = .235.

What ought to be done

	Communication code						
	1	2	3	4	5	6	Total
N	70	12	47	41	39	48	257
Mean increase:	.54	1.58	.51	.42	1.26	.71	.70
Rank of mean increase:	4	1	5	6	2	2	

Tau of ranked mean increases with communication codes = .07. P = .500.

In summary, the schools as a whole followed the pattern of Chapter IX in showing very little change, overall, in the variables studied. There was considerable variability in school means, however, and mean increase in agreement with the SIP on what was being done about the dissemination of test results was significantly related to density of communication in the school concerning guidance and testing. An analysis of changes of agreement with the SIP on the part of individuals having varying closeness of communication with the SIP showed no relation between the two variables.

This chapter adds little to the conclusions of Chapter IX. Although there was some evidence that increased mutual understanding of what was being done about the dissemination of test results was more likely to occur in schools having the higher densities of communication, no evidence was brought forth to show that the SIP himself had any influence in the matter. However, limitations of time prevented the search for the influence of the SIP from being carried forward by further methods -- for example, by constructing an index of SIP influence in regard to the dissemination of test results.

CHAPTER XI

SUB-STUDIES ON ANXIETY AND OTHER VARIABLES

The data accumulated in the course of our research were made available to graduate students who were interested in hypotheses for which our data were suitable. Two students completed the independent papers which follow. The first is an abstract of a doctoral dissertation (Univ. of Illinois, 1961); the second is a summary of a paper for a research course.

Relations Among Teachers' Self Perceptions, Educational Viewpoints, and Use of Test Results

William Carse

This study was patterned after the factorial researches on personality conducted by Guilford and by Cattell, and grounded in the general theory of the consistency of the person advanced by Lecky and by Combs. It was hypothesized that teachers' responses to various sections of our questionnaires would prove to possess factorial consistency and that the obtained factor scores would, in turn, be significantly related to teachers' behavior in working with students.

Responses of 412 teachers to the 28 items on the Educational Viewpoints section of the questionnaire (Appendix C) and the 24 items on the Self-Perception Checklist (Appendix C) supplied the data for assessing personality characteristics. All responses were converted to standard scores and factor analyzed using the principal axis method. The resulting 52 variable matrix yielded 23 factors which accounted for 64 percent of the variance. Twenty of these factors were used for a varimax rotation.

The factors obtained after rotation fell into four groups. The first contained factors previously identified in personality trait studies; the second contained educational attitude factors related to the progressive-traditional dimension in education; the third contained educational attitude factors related to the criteria used by teachers to evaluate educational information; and the fourth contained behavioral factors related to the actions teachers display in interpersonal situations.

Factor scores were computed for each teacher and compared to the teacher's responses to the Problems section of the questionnaire (Appendix C). No significant relationships were found between the highest and lowest 27% of each group on each factor and scores on the Problems Questionnaire.

It was concluded that behavioral ratings of teachers, rather than their questionnaire responses to the Student Problems might be more apt to possess significant relationships with factor scores.

Effects of Anxiety Upon Responses to Questionnaires

Gerald L. Larson

This study was based on research which has demonstrated the debilitating effects of anxiety upon individuals' performances during test situations. It was designed to discover whether these same effects were present in responses to questionnaire items.

The measure of anxiety was the score on the Self-Perception Checklist (Appendix C). The two questionnaires used were Educational Viewpoints (Appendix C) and Test Familiarity (Appendix N). The Educational Viewpoints Questionnaire consisted of 28 statements of controversial issues in education; respondents were asked to state how strongly they agreed or disagreed with each. The Test Familiarity Questionnaire consisted of a listing of 30 test titles, 15 of which represented published tests and 15 of which were fictitious names. Respondents were asked to state how familiar they were with each test in terms of the following responses: Have never heard of the test; Recognize the name, but have no further knowledge; Know what the test measures in a general way; Have examined the test and am fairly familiar with it.

It was hypothesized that anxious individuals would use a narrower range of available responses to express their opinions on the controversial educational issues and would tend to agree more frequently with the statements presented. It was also hypothesized that anxious individuals -- because of their need to make a high "score" -- would claim greater familiarity with the fictitious tests in the Test Familiarity Questionnaire than would non-anxious individuals. Finally, other research on sex differences suggested the hypothesis that there would be differences in response patterns between men and women.

Data from 519 high school teachers were analyzed. The sample was divided into anxious and non-anxious persons on the basis of the Self-Perception Checklist score, and each group was further divided on the basis of sex.

Analysis of response patterns to the controversial educational issues revealed no significant differences of any kind. Analysis of responses to the Test Familiarity Checklist, however, revealed that anxious males checked "Recognized the name...." for the fictitious tests with significantly greater frequency than did non-anxious males. This relationship was not found among females. Neither anxious males nor females showed a signigicant tendency to admit any substantial knowledge of fictitious tests (i.e. "Know what it measures generally" or "Very familiar with test"). When all fictitious responses were combined and anxious males were compared with non-anxious males, the former showed a significant tendency to give more fictitious responses. This relation did not hold for women. When the sexes were combined and the total group dichotomized on anxiety a significant relation was obtained between this variable and the frequency of responding either "Recognize the name ...." or "Know what it measures generally" to the fictitious tests. The anxious individuals in the total group also showed a significant tendency to give a larger number of fictitious responses when all fictitious responses were combined.

It was concluded that anxiety does not affect responses on a questionnaire as long as the questionnaire is perceived by the respondent to be evaluatively neutral. If the questionnaire is perceived to be like a test, however, different response patterns result for anxious and non-anxious subjects.

CHAPTER XII

BEYOND THESE FINDINGS

In the course of working with subjects, developing instruments, collecting data, and perusing results, every research worker has experiences which push his thinking beyond the investigation per se. These experiences typically lead him into a maze of implications which reach beyond the conclusions based on quantitative evidence -- implications whose validity stems from the investigator's involvement in the total study. It is the purpose of this chapter to include some of the ideas members of the research staff have had about practices in the schools, methods of training testing and guidance personnel, and further research -- ideas based partly on the quantitative evidence and partly on experiences and impressions gained during the study but not readily quantifiable.

The Respondents

The seven hundred and more individuals who willingly devoted hours of time to providing us with data were, without exception, busy professionals deeply involved in their own concerns, duties, and responsibilities. This willingness, in combination with a sustained and even heightened interest over a full year of time, possesses clear significance for research workers in this and related fields: so long as a school's faculty receive "feedback" regarding matters of a professional nature they are likely to remain personally involved in the research activity. The fact that much of our research was theoretical rather than practical, having little immediate application to the problems of individual schools or persons, strengthens this conviction.

Interviews and informal chats with respondents suggested that the present widespread interest in testing and guidance will probably help to elicit the same kind of cooperation from students and from parents. These important populations -- not sampled in this study -- need to be investigated in longitudinal studies of the complex determinants of the use of test results.

Instruments

Although the focus of the research was on the use of tests, at least half of the devices employed for data collection were designed to assess the attitudes, values, and the professional milieu of the test user. This research strategy stands in marked contrast to the more familiar view of test use as a simple combination of technical knowledge and skills. It recognizes the fact that test use takes place within a rich context of ideas about education generally; that perceptions, values, and feelings of security are part and parcel of the uses made of tests; that the trained test user, perhaps even more than the untrained, is affected by public expectations of his role and the respect with which he is regarded by his colleagues; and that the breadth and scope of communication among the staff is critical in carrying forward the work of the school. Such variables too frequently have been dismissed with the comment that they are the intangibles in this area, whereas knowledge and skill are not. Our experience, however, has convinced us that not only can one obtain sufficiently reliable measures of such variables to make their study worthwhile, but also that people can and will complete such instruments meaningfully.

It became increasingly clear to us that our understanding of how tests are used -- as well as how we can get them used properly -- will be deepened as investigators feel free to look outside the technical field of testing to the fields of motivation, role taking, and social communication. This goal can be reached more easily, we believe, when the research staff is expanded to include specialists from fields other than testing and guidance.

Knowledge about Tests

Two of our findings converged to throw into doubt some widely held beliefs about teacher training in the area of test use. These beliefs are illustrated in comments such as, "Technical knowledge about tests is all right for the research worker but possesses little or no value for the classroom teacher," and, "Some people just won't use tests properly because of their hopelessly different outlook on students' problems."

First, we learned that test use is more a function of technical knowledge about tests than of any other of the kinds of training studied. Teachers, counselors, and administrators -- despite the in-many-ways distinctive training that they receive and despite the distinctive role each plays in the school -- showed no differences among themselves in test use other than those accounted for by differences in this variable. Second, we found that an important segment of teacher opinion existed which demanded greater help from counselors in the area of test interpretation and use of results.

These findings imply that the administrator who desires greater acceptance and use of tests would be well advised to instigate a program which would provide teachers with a firm technical background in the basic principles of measurement. Aside from the findings of the present research, our experience with such a program in the Fairview School of Project 509 suggested that learning technical concepts and principles was a necessary pre-condition for later and wider applications of the skills acquired.

Two additional findings which possess important implications for training in this area stemmed from our theoretical studies of cognitive structure. We learned that the complex and highly differentiated structure which characterizes the well-trained individual possesses greater stability than does the simpler cognitive organization of the novice. We learned also that the development of a stable structure of this nature is not a linear pheonomenon. To the contrary, initial training serves to reduce cognitive dimensionality by restricting the number of criteria used in judging the problem at hand. Only later, after the addition of sizable amounts of further training, does cognitive dimensionality attain the complexity which apparently is necessary for stability.

These findings imply that intensive and long-range programs for the few are preferable in the long run to short "practical" doses for the many. It is possible, in fact, that the misuse of tests of which school people are so frequently accused is born out of minimum training programs of the "one-week-workshop" type which, our findings suggest, serve more to reduce cognitive complexity than to enhance it.

Faculty Communication

The research staff's early conviction regarding the importance of assessing the test user's professional milieu was well rewarded by results derived from analyses of intra-faculty communication in the area of guidance and testing. Over-all analyses of changes in faculty members' perceptions and attitudes invariably yielded a discouraging lack of significant differences. Analyses based on measures of the density of communication within schools, however, revealed important relations. Knowledge of the trainee's duties, as well as agreement between faculty and trainee on testing practices, were directly associated with communication density. In addition, influence -- one way or the other -- was greatest where communication lines were thickest.

Since the probability that influence will occur is much greater in schools with high communication density than in those with low, it follows that some pre-selection on this variable might enhance the actual spread of whatever concepts the training program desires to promulgate. Alternatively or in addition to pre-selection, follow-up materials specifically designed to maintain (or even to increase) the existing communication density might serve to extend both the duration and the breadth of the original influence. This recommendation receives greater urgency from a finding not reported in this volume* that counselors are not much used by other staff members until they have been in the school several years. However, our results go on to caution that training the new counselor and putting him in a school having dense communication paths is still not enough to predict the direction the resulting influence will take. Although this research project stopped short of this point, the literature of social psychology contains a great many suggestions about controlling the direction of influence in small groups.

The Trainees

Plenty of evidence was given in Chapter IV to justify the existence of the institute. Since writing Chapter IV, an additional piece of pertinent evidence has turned up from Project 939. In the schools of the present study and also in a large sample of secondary schools randomly chosen from over the state, teachers were asked how many students they had sent to the counselor during the past year for disciplinary reasons. Answering this question in the fall of 1960, after the trainees (and the stimulation of our research) had been with the schools for a year's time, teachers in our present sample reported sending significantly fewer students to the counselor for disciplinary reasons than did teachers in the control sample of schools. This result is illuminated by the fact that in one of the schools of this study the counselor's office, which had until then been part of the administrative suite, was moved purposely to an upper floor of the school so that students visiting it would not be suspected by their friends of going to "the office" for disciplinary reasons. The view of the counseling function which such an action represents would, we feel, be consistent with the views of the instructors of the institute.

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*See Runkel, P. J. Communication between counselors and teachers. NCME Newsletter, 1961, 4, No. 2, 1-4.

The informal reports we received from trainees and from administrators in the schools reinforce our quantitative findings about the worth of the institute in its effects on the trainee. Clearly, there were numerous ways in which the institute was profitable. Just as clearly, however, the areas in which the institute had the desired effect and the areas in which it did not cannot be ascertained simply; they are not to be located merely by asking for the impressions of the trainees or of the instructors. As with all teaching projects, the particular kinds of successes of a particular program or method applied for a particular purpose to a particular kind of person can only be ascertained precisely by careful -- and often surprisingly complicated -- techniques of assessment.

VOLUME II · APPENDICES

EFFECTS ON USE OF TESTS BY TEACHERS TRAINED IN A SUMMER INSTITUTE

Cooperative Research Project No. 702

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VOLUME II
APPENDICES

Bureau of Educational Research
University of Illinois
Urbana, Illinois

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APPENDIX A

Test of Knowledge and
Interpretation of
Tests (KIT)

KNOWLEDGE AND INTERPRETATION OF TESTS

Name ______________________ Date __________

School ______________________

University of Illinois
Bureau of Educational Research
Urbana, Illinois

ABOUT THIS "TEST"

The attached pack of mineographed sheets looks like a test. And in one way it is. But our purpose in asking you to try your hand at it is quite different from the purposes with which many tests are given.

We are not trying to measure your ability, nor your competence.

All of us know that knowledge needs to be used if it is to be kept fresh in memory and easy to recall. No doubt you will find some items in this "test" which you could brush up on easily because of training or experience you have had in the past. Without such brushing up, your answers will not represent your actual ability or familiarity with this field. Rather, the test will be an index of the kinds of things which "stick in the mind" of practicing teachers.

And this is exactly what we want to ascertain. We want to get an indication of the kinds of technical information about testing which are most salient--which stay "at the finger tips"-- of working teachers.

For this reason, please do not look up any answers. Please do not consult with others about the answers. Just go through and mark in each case what seems to you the best answer, without dwelling very long on any one item. This will give us the index we are looking for.

You will probably be curious to know how many questions you get right. We will have this information when we meet with you next spring, and will discuss your score with you if you are interested. This information, however, will be given to no-one but you. The results will be used only for research purposes.

We find that most people require about an hour for this test. Please go through it alone, in a relatively quiet place, and--if at all possible--at one sitting.

Read each question carefully and then circle the answer you think is correct. Mark an answer for every question, even though you are not certain of your answer. Do not mark more than one answer for any question.

When you have completed the test enclose it in the attached envelope and mail it to us. Be sure your name and school appear on the cover page.

Thank you for your cooperation.

Directions: Place a circle around the letter which indicates the correct answer. Mark only one answer for each question. If you are not sure of the correct answer to a question, make the best guess you can and go on to the next one.

1. In which way are informal teacher-made tests superior to standardized tests?

   A - They are more reliable for evaluating differences among very good and very poor students.

   B - They provide more valid measures of the teacher's specific objectives.

   C - They provide a better measure of the students' grasp of important facts and principles.

   D - They are simpler to administer and score.

2. Which of the following is the wisest attitude a teacher can have with regard to the use of test results?

   A - They are of limited value because they have the effect of causing the teacher to "categorize" students.

   B - They provide important data on which to base further study.

   C - They can, when adequately interpreted, provide sufficient information for choosing a career.

   D - They are too unreliable to be of value except for drawing conclusions about groups of individuals.

3. In counseling junior high school students a teacher should be most cautious in her interpretation of the information she obtains from

   A - Vocational interest tests.

   B - Study skills tests.

   C - Reading comprehension tests.

   D - Performance tests.

4. A student scored at the 75th percentile on a standardized achievement test. This means that

A - 75 percent of the norm group scored lower than he did.

B - 75 percent of the norm group scored higher than he did.

C - he answered 75 percent of the questions correctly.

D - he is in the upper 25 percent of his own high school class.

5. Because no standardized test possesses perfect reliability it is essential that the teacher regard the score which a student obtains as

A - having little meaning unless it is very high or very low.

B - indicating a point in the range near which the student's true score probably falls.

C - indicating only that the student has either more, or less, ability than the average individual in the norming group.

D - providing information about the student which can be used only by a thoroughly trained guidance counselor.

6. A teacher has made up an objective test covering the important concepts in a recently completed unit of subject matter. Which type of information that he could obtain from the test results would be most helpful in showing him what concepts his students had mastered and what ones they had not?

A - The percentile rank of each student.

B - The range of scores for the class.

C - The mean and standard deviation of the test.

D - The number of students who failed each question.

7. A comparison based upon the results of the recently administered Iowa Silent Reading Test showed that Miss Brown's eighth grade English class at Northside Junior High had a median grade placement of 7.4, whereas Miss Jones' eighth grade English class at Southside Junior High had a median grade placement of 8.4. This difference most probably indicates that

   A - Miss Brown devoted less time to individual instruction than Miss Jones.

   B - Miss Jones devoted more time to instruction in the areas measured by the test.

   C - a wide range of ability exists among the Southside pupils.

   D - A difference in general academic ability exists between Northside and Southside pupils.

8. How can a teacher most easily evaluate the reliability of the test questions he devises for his students?

   A - Make a scatter-plot of the scores.

   B - Make frequency distributions of high and low scoring students.

   C - Compare the percent of high and low scoring students that answered each question correctly.

   D - Correlate each question with the total test score.

9. John tells his mother that he made a score of 68 on his science test. Which type of information would best help his mother to understand the meaning of his score in terms of his achievement in science?

   A - The test consisted of 90 questions.

   B - Half of the class failed the test.

   C - The mean score for the class was 65.

   D - The highest score in the class was 83.

10. On a group intelligence test, which pupil would be most apt to receive an I.Q. that is much lower than his true ability?

   A - Mary, whose parents speak only Spanish.

11. If a teacher wishes to compare the performance of her students with the performance of other students of similar age and experience, it is necessary for her to administer

A - an objective test.

B - an achievement test.

C - a standardized test.

D - a performance test.

12. A teacher has a group of students, all of whom have I.Q.'s of 120 and above. With a group of this kind the teacher will invariably find that.

A - the classroom atmosphere will be highly competitive.

B - no student will fall below the norm on tests.

C - differences in aptitudes and interests will cause the students to vary considerably in achievement.

D - the group will be no different from an average class because of the unreliability involved in measuring intelligence.

13. A student's class rank in high school is often a better predictor of college success than his I.Q. score because it provides an indirect measure of the student's

A - motivation.

B - interest.

C - achievement.

D - aptitudes.

14. In school X all ninth graders are routinely given a group intelligence test, and those with I.Q.'s of 90 and below are placed in a special class for the mentally retarder. Before any pupil is so placed, however, the following four steps are taken. Which of these should come first?

A - The pupil is interviewed by the school counselor.

B - The pupil is given an individual intelligence test.

C - The guidance counselor confers with the pupil's parents.

D - The guidance counselor confers with the pupil's teachers.

15. If a test has a mean of 50 and a standard deviation of 10, approximately two-thirds of the group received scores between

A - 40 and 50.

B - 40 and 60.

C - 50 and 60.

D - 30 and 70.

16. Teachers should motivate students to make the best scores they possibly can on all of the following types of tests EXCEPT

A - Aptitude tests.

B - Diagnostic tests.

C - Personality tests.

D - Readiness tests.

17. A tenth grade teacher observes the following data on a student's cumulative record:

4th grade:	Henmon-Nelson I.Q.:	136
7th grade:	Kuhlmann-Anderson I.Q.:	113
9th grade:	Terman-McNemar I.Q.:	99

Which hypothesis that the teacher might formulate regarding the cause of this progressive decline is LEAST tenable?

A - The tests were administered and scored by teachers who lacked guidance training.

B - The tests were unreliable.

C - The school has failed to provide for this student's needs.

D - The student is in severe conflict with his parents.

18. During the first week of school a teacher gave the same reading comprehension test to both of her eleventh grade English classes. In her morning class the students had a mean of 73 and a standard deviation of 12. In her afternoon class the students had a mean of 73 and a standard deviation of 26. What do these results imply with regard to her planning for these two classes?

    A - The difficulty range of reading materials should be greater for the afternoon class.

    B - The variety of reading materials should be greater for the afternoon class.

    C - The textbook used in the afternoon class should be of simpler and easier format.

    D - The work assignments given the afternoon class should be less extensive.

19. A teacher is in the habit of giving his geometry students a weekly test. In the middle of the school year, six of the students in his class transfer to another school. For the remaining students, which of the following will probably show the greatest amount of change?

    A - The raw scores they make on the weekly tests.

    B - Their rank in class as determined by the weekly tests.

    C - Their average weekly test scores.

    D - The range of their weekly test scores.

20. Both John and Arthur plan to study medicine in college. On a vocational interest test John scored at the 90th percentile for "physician" and Arthur scored at the 55th percentile. What do these results imply?

    A - Both boys have sufficient interest in medicine to make its study worthwhile for them.

    B - Because John's interest is almost twice as strong as Arthur's, John will become a better physician.

    C - Since Arthur has only an average amount of interest in medicine he will probably dislike many of his courses.

    D - John's interests are almost identical with the interests of successful physicians, whereas Arthur's are not.

Questions 21 through 23 are based on the following information about William Jones. Read the questions first, and then use these data to decide upon your answers.

Age: 17
Grade: Eleventh
Curriculum: College Preparatory
High School Gr. Av.: C-
I.Q.: 124 (obtained in tenth grade)
Future Plans: Engineering College
Father's Occupation: Garage Mechanic
Mother's Occupation: Housewife
Extracurr. Act.: Band, Orchestra, Glee Club
Health Record: Good except for 30/50 vision in both eyes corrected by glasses to 20/30.

Kuder Preference Record*

Area	Percentile
Mechanical	10
Computational	34
Scientific	40
Persuasive	58
Artistic	63
Literary	80
Musical	85
Social Serv.	10
Clerical	28

*A widely used interest test.

21. What appears to be the major discrepancy in William's Record?

    A - That between his I.Q. and his high school curriculum course.

    B - That between his future plans and his Kuder Profile.

    C - That between his Kuder Profile and his extra-curricular activities.

    D - That between his father's occupation and his future plans.

22. What is the most probable cause of William's poor school achievement?

    A - Poor motivation due to lack of interest.

    B - Excessive time spent in extra-curricular activities.

    C - Poor study habits due to defective vision.

    D - Poor home background.

23. Although all of the following questions are important, William's record indicates that it is most important for his teacher to investigate whether

    A - he is popular with his classmates.

    B - a conflict exists between him and his parents regarding his vocational career.

    C - the college preparatory curriculum is too difficult for him.

    D - his extra-curricular schedule is too heavy.

24. In contrast to a power test, a speed test is one in which

A - No pupil has time to answer all of the questions.

B - all questions are very short and factual in nature.

C - pupils race with each other to see who can obtain the highest score.

D - pupils are not permitted to guess.

25. Many of today's standardized tests are superior to those constructed ten to twenty years ago. Of the following changes which have been made, which one is of greatest significance educationally?

A - Human judgement has been almost entirely eliminated, making the tests completely objective.

B - The scores provide more information about students which a teacher can accept at face value.

C - More emphasis is placed on the ability to apply principles and less on the ability to recall facts.

D - The test manual reports all significant information regarding reliability, validity, and norming.

26. Upon receiving intelligence test scores for her class a teacher is surprised to learn that a pupil she has always considered as "average" has an I.Q. of 84. Of the following, what is her most appropriate immediate course of action?

A - Check the pupil's cumulative record for the results of previously administered achievement and intelligence tests.

B - Evaluate her attitude toward the pupil's performance in class to learn whether she has been grading him too leniently.

C - Discuss the test results with the pupil to learn whether he was ill on the day of the test.

D - Recognize that the pupil is achieving far beyond his capacity and encourage him to continue.

27. Which of the following abilities is it most difficult to measure using an objective paper-and-pencil test?

A - Ability to understand material that has been read.

B - Ability to solve complex mathematical problems.

C - Ability to conduct oneself in a sportsmanlike manner.

D - These abilities are equally difficult to measure in the sense that none of them can be reliably assessed by objective tests.

28. In his high school social studies classes Mr. Brown places major emphasis upon the development of critical thinking skills. Upon learning that an achievement test entitled "Critical Thinking in the Social Studies" has just been published, he writes for a specimen set. How could Mr. Brown best determine whether the test would be a valid measure of his own students' critical thinking skills?

A - Read the test manual to determine whether the norms are adequate and reliable.

B - Examine the statistical data on reliability and validity.

C - Examine the scoring manual to determine how the test scores are weighted.

D - Examine the test questions to determine whether they require the skills and abilities he has been emphasizing.

29. Four teachers are discussing the scores made by their students on a recently administered intelligence test. Which teacher's statement reveals the LEAST understanding of the meaning of a test score?

A - "You can have your test scores if you want them. I prefer my own evaluation of the student's work to anything an I.Q. tells me."

B - "I always knew Mary had an I.Q. of 90--and she has."

C - "I never was more surprised than when John turned up highest in the class. I'll bet he won't score that high again."

D - "I'm glad we finally got these I.Q.'s. I want to group my students on the basis of ability."

30. Scores on standardized intelligence tests are based on the assumption that all pupils

    A - have had some previous experience with such tests.

    B - have had some formal schooling.

    C - have had similar backgrounds of experience.

    D - are completely unfamiliar with types of questions asked.

31. A teacher has given a test and wishes to compare the standing of each student with all of the others in the class. How could he most quickly and most easily do this?

    A - Compute the mean score.

    B - Compute the median score.

    C - Make a scatter-plot of the scores.

    D - Make a frequency distribution of the scores.

32. The standard error of measurement is a numerical figure which indicates

    A - the number of points a student's test score is in error in relation to the score he should make.

    B - the number of points the mean score for the test is in error.

    C - a range of scores within which the student's true score most probably falls.

    D - the reliability of the test norms.

33. Which type of test is typically composed of questions derived from a systematic study of students' errors?

    A - An aptitude test.

    B - An achievement test.

    C - A prognostic test.

    D - A diagnostic test.

34. At the end of the semester a history teacher gave his pupils an essay test on the material covered during the preceding weeks. When he graded the papers he deducted points from the total score for spelling, grammar and English usage. In so doing he

A - increased the accuracy of his final grades.

B - increased the objectivity of measurement.

C - lowered the reliability of the test.

D - lowered the validity of the test.

35. A teacher learns that two standardized reading tests correlate .96 with each other. This indicates that the two tests

A - have high validity.

B - have been normed on the same group.

C - contain many questions that are identical.

D - can be used inter-changeably.

36. Many test experts recommend the use of age norms instead of grade norms for evaluating pupil achievement. This is because

A - age norms are based on much larger numbers of pupils.

B - age norms are more representative of the total population of pupils.

C - grade norms are heavily influenced by a school's promotion policies and curriculum practices.

D - grade norms cannot be used for making comparisons between individual pupils.

37. Year after year the mean achievement test scores for the students in school X consistently fall one year or more above the national norms. What is the most probable cause of this finding?

A - School X is located in an upper-middle class community.

B - School X is staffed with expert teachers.

C - School X is using tests that have unreliable norms.

D - School X stresses the traditional, rather than the activity, curriculum.

38. A Social Studies teacher senses that concealed feelings of hostility among his pupils are preventing good group work from occurring on class projects. What type of test could furnish him information about this problem?

A - A personality test.

B - A sociometric test.

C - A projective test.

D - A social adjustment test.

39. Which type of ability is most appropriately measured by means of a quality scale?

A - Handwriting ability.

B - Spelling ability.

C - Computational ability.

D - Mechanical ability.

40. In contrast to a test which is "well standardized" a poorly standardized test is one which

A - has norms that are based on fewer than 1,000 cases.

B - uses a norm sample that is not representative of the group for which the test is designed.

C - consists of test questions that have not been validated.

D - includes test questions that do not measure what they are intended to measure.

41. In which of the following instances is a teacher most justified in requiring all students to make test scores of 75 percent or better?

A - The class is composed of above average students.

B - The questions are essay rather than objective.

C - The questions measure knowledge of essentials.

D - The pupils have had ample time to prepare for the test.

42. If a teacher wants to measure pupils' growth in her subject from the beginning to the end of the school year it is necessary for her to select an achievement test which

A - provides a diagnostic profile of scores.

B - correlates well with grades in high school.

C - has a reliability of at least .95.

D - has comparable forms.

43. School X has decided to administer its standardized test program for seventh grade pupils early in the fall, instead of late in the spring as it has done in previous years. Which of the following types of tests should receive the heaviest emphasis in the changed program?

A - Interest

B - Personality

C - Aptitude

D - Intelligence

44. John scored at the 60th percentile in an academic aptitude test, but scored only at the 57th percentile in a test of reading ability. John's teacher should

A - ignore this difference altogether.

B - provide him with individual help in reading.

C - motivate him to read more extensively outside of school.

D - have him retested in reading ability.

45. Many teachers regard low test scores as "bad" and high test scores as "good". In what way is this habit of thinking most detrimental to students?

A - It causes teachers to over-estimate the true abilities of students.

B - It causes teachers to mark students on the basis of their achievement.

C - It prevents teachers from providing appropriate learning experiences for students.

D - It prevents teachers from having an open mind about the capabilities of students in areas other than school-work.

46. If a teacher wishes to obtain a critical review of a standardized test she plans to use with her classes she should consult the

A - Test Manual issued by the publisher.

B - Encyclopedia of Educational Research.

C - Review of Educational Research.

D - Mental Measurements Yearbook.

47. The meaning of which one of the following types of scores is completely self-explanatory?

A - A raw score.

B - A percentile score.

C - A converted score.

D - A standard score.

48. If a certain test is taken by a group of high school seniors, and is found to correlate .62 with freshman grades received in college by these same seniors, one can say that

A - the test is a valid predictor of college aptitude.

B - the test is not a reliable measure of college success.

C - approximately two-thirds of those taking the test will be successful in college.

D - students who score lower than 62 will be unsuccessful in college.

49. John is 14 years old and has an I.Q. of 100. Mary is 12 years old and has an I.Q. of 100. What can be said of their mental ages?

A - Their mental ages are the same.

B - John's mental age is greater than Mary's.

C - Mary's mental age is greater than John's.

D - Their mental ages cannot be determined from the data given.

50. Many intelligence tests provide two scores: a verbal or language score, and a non-verbal or abstract reasoning score. What is the major advantage of such tests?

A - They are easier to interpret.

B - They provide more reliable information about students.

C - They provide a more accurate picture of the student with a language handicap.

D - They provide a better prediction of later achievement in high school as well as in college.

51. Most standardized intelligence tests have reliability coefficients ranging from

A - .75 to .80

B - .80 to .85

C - .85 to .90

D - .90 to .95

52. A teacher is examining the manual for a new diagnostic reading test. In the section labeled, "Description of Test" she finds the statement: "This test provides measures of four completely independent reading skills." In the section labeled, "Test Statistics" she finds the following data on the reliability and intercorrelation of the four scores:

Reading Skills	Par. Mean.	Sent. Mean.	Vocab.	R. Speed
Paragraph Meaning	.88*			
Sentence Meaning	.80	.82*		
Reading Vocabulary	.82	.76	.88*	
Reading Speed	.78	.72	.76	.94*

*The entries in the diagonal are reliability coefficients.

On the basis of the material in the test manual, what criticism should the teacher make?

A - The test does not measure independent reading skills.

B - The test is highly speeded.

C - The test is not sufficiently reliable to make comparisons between individual pupils.

D - The correlations among the scores indicate that the test possesses little validity.

53. If a student's test score is two standard deviations above the mean, what percent of the total group does he exceed?

A - 34%

B - 68%

C - 86%

D - 96%

54. In general, increasing the length of a test will make it more

A - valid.

B - reliable.

C - objective.

D - diagnostic.

55. In administering an intelligence test that has two short separately timed parts, Mr. Roberts discovers that he has called time on the verbal section 10 minutes too soon. As the students are now working on the non-verbal section, he decides to add 10 minutes to this part to make up for the 10 minutes which had been cut from the verbal section.

Which of the following will be LEAST affected by Mr. Roberts' error?

A - The students' ranks as determined by their raw scores on the test.

B - The mean raw score of the class.

C - The range of scores made by the class.

D - The difference between each student's verbal and non-verbal I.Q.

56. A diagnostic test which provides the teacher with a profile of scores is of little value unless

A - the sub-tests which make up the profile are quite reliable.

B - the test has reliable norms.

C - the test has been shown to be a valid predictor of future achievement.

D - the scores are reported in terms of percentile ranks.

57. If a test has a reliability of .90 for an "average" group of students, and is administered to a "superior" group of students, what will its reliability be for the superior group?

A - Larger.

B - Smaller.

C - The same.

D - Different, but not in any predictable way.

58. Test A has a reliability of .92 for grades 7, 8, and 9. Test B has a reliability of .92 for grade 8. These facts tell us that

A - test A is superior because it is reliable over a wider grade range.

B - test B is superior because it provides a more reliable measure of eighth grade achievement.

C - both tests are equally reliable for eighth grade students.

D - Test B would be as reliable as Test A if administered to seventh and ninth grade students.

59. Below are the percentile scores of four students on a standardized reading test:

Mary:	45	Tom:	90
Jane:	50	Jim:	95

What can be said about the difference in these students' achievement?

A - The relative differences in achievement between Mary and Jane is equal to that between Tom and Jim.

B - Tom's achievement is twice as great as Mary's.

C - The teacher can be more certain about Jim being better than Tom than she can about Jane being better than Mary.

D - The teacher should recognize that if the test were administered a second time it is quite probable that Tom would do better than Jim.

60. "The experimental group had a mean score of 35 on the test and the control group had a mean score of 20. This difference is significant at the 1% level."

This statement means that

A - the difference is a true difference and cannot be attributed to chance.

B - a difference this large would occur by chance one time in a hundred.

C - if the experiment were repeated there is a fifty-fifty chance that a difference this large would be obtained.

D - if the experiment were repeated several times this difference would occur one percent of the time.

Check your degree of familiarity with the thirty tests listed below by writing the appropriate letter on the line to the right of each test.

A - Have never heard of the test.

B - Recognize the name, but have no other knowledge about the test.

C - Know what the test measures in a general way.

D - Have examined (or studied about) the test and am fairly familiar with it.

Be sure to write a letter after every test.

61. Stanford-Binet I.Q. ____

62. Bell Adjustment Inventory ____

63. Arting Reading Ability ____

64. Strong Vocational Interest ____

65. Hart Personality Schedule ____

66. Iowa Silent Reading ____

67. Ace Psychological ____

68. Jenson Inventory ____

69. Seashore Musical Talent ____

70. Burnham Interest Inventory ____

71. Cuyler Aptitude Battery ____

72. MMPI ____

73. Kuder Preference Record ____

74. CTMM ____

75. Durwith's Study Skills ____

76. AIMC ____

77. Gates Reading ____

78. Ender's Paragraph Reading ____

79. Boring's Occupational Inventory ____

80. California Test of Personality ____

81. Coop. Achievement ____

82. Lunt Spatial Relations ____

83. TRSP ____

84. Bernreuter Personality ____

85. Bauman Interest Blank ____

86. SCAT ____

87. STEP ____

88. NIRO ____

89. PREP ____

90. Miller Preference Blank ____

APPENDIX B

Card Sort Test: Teacher Form

YEARLY RECORD FOR GRADE____

NAME AGE

INTELLIGENCE	ACHIEVEMENT PERCENTILE	KUDER PROFILE PERCENTILE

HOME-ROOM TEACHER:

ADVISOR:

YEARLY RECORD FOR GRADE 10

NAME Gregory Barton Age 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
	Reading	65	Mechanical	75
	Science	89	Computational	87
	Math	88	Scientific	83
	Social Studies	64	Persuasive	64
			Artistic	50
			Literary	43
			Musical	36
			Social Service	28
			Clerical	19

HOME-ROOM TEACHER:

An excellent student high in achievement and ability.

ADVISOR:

Well-liked. Capable. Conscientious. Excellent student.

YEARLY RECORD FOR GRADE 10

NAME Glen Chapman AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
CTMM: 109	Reading	26	Mechanical	23
	Science	25	Computational	21
	Math	26	Scientific	18
	Social Studies	24	Persuasive	41
			Artistic	63
			Literary	61
			Musical	48
			Social Service	83
			Clerical	87

HOME-ROOM TEACHER:

Glen has his heart set on becoming a scientist like his father. Unfortunately his ability does not seem to warrant this. He accompanies his father to the lab evenings and weekends and loves every minute of it. He works very hard but does not seem to understand basic scientific concepts.

ADVISOR:

Glen is keenly interested in all things scientific. All three science teachers have commented to me on his interest but they are worried that his ability is just not up to his ambitions.

YEARLY RECORD FOR GRADE 10

NAME Doris Sheehan AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
OTIS: 124	Reading Science Math Social Studies	84 82 81 84		

HOME-ROOM TEACHER:

This girl has no interest in anything but athletics. She spends all of her time in the gym. Her English teacher tells me she writes nearly all of her papers on games and sports.

ADVISOR:

Interested only in sports. I have talked with her about becoming a physical education teacher but she says she wants to "play," not "teach."

YEARLY RECORD FOR GRADE 10

NAME John DeWitt AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
CTMM: 106	Reading	39		
	Science	26		
	Math	27		
	Social Studies	44		

HOME-ROOM TEACHER:

John cares only for science. He is never happier than when he is "Experimenting" in the little laboratory he built in his basement at home.

ADVISOR:

Very interested in science. He told me that his chief problem was to decide which field of science to go into.

YEARLY RECORD FOR GRADE 10

NAME Mary Mullen AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
OTIS: 129			Mechanical	26
			Computational	29
			Scientific	32
			Persuasive	43
			Artistic	76
			Literary	54
			Musical	40
			Social Service	65
			Clerical	94

HOME-ROOM TEACHER:

Every teacher who has this girl complains about her. She is near the bottom in all of her classes, her work is rarely handed in on time, she practically refuses to recite or to answer when called on.

ADVISOR:

I am concerned about Mary. She has no interests, no plans, no ambitions. She dislikes school intensely and refuses to work at anything. A very difficult girl.

YEARLY RECORD FOR GRADE 10

NAME Elaine Humphrey AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
CTMM: 120	Reading	81	Mechanical	85
	Science	82	Computational	87
	Math	82	Scientific	85
	Social Studies	84	Persuasive	16
			Artistic	49
			Literary	37
			Musical	43
			Social Service	21
			Clerical	31

HOME-ROOM TEACHER:

Excellent student. The math teacher tells me that he has yet to call on Margaret for an explanation that she cannot provide.

ADVISOR:

A born mathematician. Bright and capable girl. Will do well in any type of scientific research.

YEARLY RECORD FOR GRADE 10

NAME Margaret Hilton AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
CTMM: 103			Mechanical	82
			Computational	81
			Scientific	79
			Persuasive	58
			Artistic	42
			Literary	46
			Musical	48
			Social Service	60
			Clerical	22

HOME-ROOM TEACHER:

Excellent student. The math teacher tells me that he has yet to call on Margaret for an explanation that she cannot provide.

ADVISOR:

A born mathematician. Bright and capable girl. Will do well in any type of scientific research.

YEARLY RECORD FOR GRADE 10

NAME Margaret Nielson AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
CTMM: 109	Reading	23	Mechanical	21
	Science	26	Computational	17
	Math	24	Scientific	26
	Social Studies	26	Persuasive	40
			Artistic	37
			Literary	59
			Musical	63
			Social Service	25
			Clerical	87

HOME-ROOM TEACHER:

Margaret is a capable and industrious student. She does good work in all her classes and is very popular with both her teachers and her peers.

ADVISOR:

This girl has yet to make a firm decision regarding her future. Her chief interest lies in working in a hospital, but she does not want to become a nurse. I have discussed the possibilities of becoming a laboratory technician, an X-ray technician, or doing medical research. Of these she prefers the last. Her interest and capability in science would make this a good choice for her.

YEARLY RECORD FOR GRADE 10

NAME Mildred Learch AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
CTMM: 106	Reading	23	Mechanical	67
	Science	25	Computational	81
	Math	23	Scientific	93
	Social Studies	26	Persuasive	63
			Artistic	39
			Literary	41
			Musical	16
			Social Service	32
			Clerical	19

HOME-ROOM TEACHER:

A superior student. Does excellent work in all of her classes.

ADVISOR:

One of our better students. No definite plans other than "college" as yet.

YEARLY RECORD FOR GRADE 10

NAME Ruth Skillman AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
CTMM: 106	Reading	73	Mechanical	88
	Science	85	Computational	81
	Math	88	Scientific	84
	Social Studies	76	Persuasive	48
			Artistic	53
			Literary	41
			Musical	37
			Social Service	47
			Clerical	55

HOME-ROOM TEACHER:

This girl's ability is quite high. On two different occasions teachers have told me that when class discussion gets involved she can ask a question that cuts right to the heart of the matter.

ADVISOR:

This girl wants to become a high school teacher and I have encouraged her in this. She is of superior ability and I believe she will be quite successful in working with students.

YEARLY RECORD FOR GRADE 10

NAME Martin Anderson AGE 16

INTELLIGENCE	ACHIEVEMENT PERCENTILE	KUDER PROFILE PERCENTILE
CTMM: 121		

HOME-ROOM TEACHER:

This boy is near the bottom of his class in achievement. Many teachers have commented to me about his poor work.

ADVISOR:

Poor worker. Very low in achievement. Interested only in athletics. Talks of being a professional athlete.

YEARLY RECORD FOR GRADE 10

NAME Burt Ingram AGE 16

INTELLIGENCE	ACHIEVEMENT PERCENTILE	KUDER PROFILE PERCENTILE
		Mechanical 17 Computational 88 Scientific 31 Persuasive 18 Artistic 14 Literary 21 Musical 16 Social Service 48 Clerical 71

HOME-ROOM TEACHER:

Inferior ability and achievement. Does failing work in most of his classes.

ADVISOR:

No interest in school or any of his classes. Spends most of his time with his gang hanging around street corners. Below average in ability and achievement.

YEARLY RECORD FOR GRADE 10

NAME Morton Dawson AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
			Mechanical	17
			Computational	28
			Scientific	31
			Persuasive	62
			Artistic	24
			Literary	23
			Musical	19
			Social Service	48
			Clerical	71

HOME-ROOM TEACHER:

Poor student. Limited ability.

ADVISOR:

Plans to become a chemist like his father and brother but his low ability and achievement make this possibility unlikely.

YEARLY RECORD FOR GRADE 10

NAME Catherine Kenny AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
	Reading	26	Mechanical	23
	Science	26	Computational	21
	Math	24	Scientific	18
	Social Studies	23	Persuasive	49
			Artistic	53
			Literary	57
			Musical	36
			Social Service	72
			Clerical	89

HOME-ROOM TEACHER:

Catherine is a very conscientious student who gets along well with everyone. Although she works very hard and gets good marks she does not always seem to"grasp" the essentials.

ADVISOR:

Is seriously considering becoming a high school science teacher.

YEARLY RECORD FOR GRADE 10

NAME Paul Kilgore AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
OTIS: 121	Reading	81	Mechanical	85
	Science	83	Computation	87
	Math	84	Scientific	85
	Social Studies	82	Persuasive	41
			Artistic	16
			Literary	22
			Musical	19
			Social Service	38
			Clerical	21

HOME-ROOM TEACHER

I have heard two different teachers comment on Paul's lackadaisical attitude and class work, and I agree with them. His ability and achievement are both below average and his interest in his studies is nil.

ADVISOR:

Paul is a difficult boy to talk to. When I try to get at the reason for his poor school work and total lack of interest he clams up and I get no where. His lack of ability is as apparent to all of his teachers as it is to me.

YEARLY RECORD FOR GRADE 10

NAME Keith Warren AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
OTIS: 123	Reading	84	Mechanical	33
	Science	81	Computational	45
	Math	81	Scientific	37
	Social Studies	83	Persuasive	81
			Artistic	69
			Literary	67
			Musical	92
			Social Service	86
			Clerical	49

HOME-ROOM TEACHER:

This boy is extremely negative toward his work. He has come into serious conflict with two of his teachers. His achievement is very low, and in ability he is near the bottom of his class.

ADVISOR:

YEARLY RECORD FOR GRADE 10

NAME Bill Turner AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
CTMM: 123	Reading	64	Mechanical	36
	Science	44	Computational	50
	Math	41	Scientific	41
	Social Studies	72	Persuasive	63
			Artistic	81
			Literary	78
			Musical	82
			Social Service	46
			Clerical	79

HOME-ROOM TEACHER:

Bill's ability is questionable. His teachers tell me that they frequently doubt that the work he hands in is his own. He rarely recites in class or enters into the discussion, and when called on he seems not to understand the question.

ADVISOR:

Bill's parents have talked with me about whether to send him to college, but I doubt that he has the ability. Various comments about his behavior in class from teachers tend to support my judgment in this.

YEARLY RECORD FOR GRADE 10

NAME Norman Richardson AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
CTMM: 108	Reading	23	Mechanical	21
	Science	26	Computational	24
	Math	26	Scientific	24
	Social Studies	24	Persuasive	62
			Artistic	37
			Literary	39
			Musical	51
			Social Service	78
			Clerical	61

HOME-ROOM TEACHER:

A very capable girl. Does well in all of her classes.

ADVISOR:

Very good student. Have talked with her about going on to college. She plans to study nuclear physics.

YEARLY RECORD FOR GRADE 10

NAME Joyce Durwith AGE 16

INTELLIGENCE	ACHIEVEMENT PERCENTILE	KUDER PROFILE PERCENTILE
CTMM: 109		

HOME-ROOM TEACHER:

A very capable girl. Does well in all of her classes.

ADVISOR:

Very good student. Have talked with her about going on to college. She plans to study nuclear physics.

YEARLY RECORD FOR GRADE 10

NAME Alex Crane AGE 16

INTELLIGENCE	ACHIEVEMENT PERCENTILE	KUDER PROFILE PERCENTILE

HOME-ROOM TEACHER:

A top-notch student. Several teachers have commented to me about what a pleasure it is to have Alex in their classes. His work is always well done and always in on time. He seems interested in everything.

ADVISOR:

This boy's only problem is in deciding what most interests him. He enjoys all of his classes and does very good work in all of them. To date he has considered Law, Medicine, Politics, and Teaching!

YEARLY RECORD FOR GRADE 10

NAME Kathy Parker AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
			Mechanical	81
			Computational	79
			Scientific	84
			Persuasive	31
			Artistic	64
			Literary	79
			Musical	42
			Social Service	37
			Clerical	61

HOME-ROOM TEACHER:

An excellent student. Stands high in all of her classes, but is especially interested in English and literature.

ADVISOR:

Plans to become a writer. Superior in ability and achievement. I have discussed colleges and college courses with her in detail.

YEARLY RECORD FOR GRADE 10

NAME Ruth Changer AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
	Reading	65	Mechanical	74
	Science	83	Computational	82
	Math	80	Scientific	86
	Social Studies	63	Persuasive	31
			Artistic	16
			Literary	25
			Musical	33
			Social Service	45
			Clerical	59

HOME-ROOM TEACHER:

A bright girl but is below average in achievement. More interested in her duties as cheer-leader than in her school work.

ADVISOR:

A pleasant and popular girl. Does not work up to her full capability. Plans to become a beautician and work in her sister's beauty parlor.

YEARLY RECORD FOR GRADE 10

NAME Bernice Eager AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
Kuhlmann-Anderson: 122	Reading	84	Mechanical	87
	Science	84	Computational	85
	Math	84	Scientific	93
	Social Studies	81	Persuasive	40
			Artistic	27
			Literary	36
			Musical	31
			Social Service	43
			Clerical	22

HOME-ROOM TEACHER:

Bernice is extremely bright. She loves her work in Home Economics and dreams of the day when she will have her own home and family. She has no interest in anything except home-planning and home-management.

ADVISOR:

This girl's strong interest in Home Economics and her very high ability has led me to suggest that she enter this field professionally. She will have none of it. She has no interest in anything other than becoming a wife and mother.

YEARLY RECORD FOR GRADE 10

NAME Carroll Scott AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
OTIS: 120	Reading	81	Mechanical	87
	Science	84	Computational	86
	Math	83	Scientific	93
	Social Studies	81	Persuasive	40
			Artistic	18
			Literary	26
			Musical	38
			Social Service	54
			Clerical	19

HOME-ROOM TEACHER:

Below average in achievement. Work is sloppy and never on time. The only teacher who has not commented on this is the physical education teacher. She always gets A's in physical education.

ADVISOR:

This girl's low achievement will prevent her from being successful in college. She is planning to attend college, and I have several times warned her that unless her achievement improves she will have difficulty in gaining admittance. She plans to become a physical education teacher.

YEARLY RECORD FOR GRADE 10

NAME Frances DeLong **AGE** 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
OTIS: 129	Reading	84		
	Science	82		
	Math	81		
	Social Studies	81		

HOME-ROOM TEACHER:

This girl is a problem! Her work is very poor, her ability is definitely below average, and her attitude toward school and her teachers worse than both. Every teacher complains of her poor attitude and lack of interest.

ADVISOR:

If this girl has any interests I cannot locate them. I have talked with her several times, but with no success. Her lack of ability and achievement are all part of the same picture.

YEARLY RECORD FOR GRADE 10.

NAME Darrell O'Rourke AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
	Reading	28	Mechanical	42
	Science	17	Computational	39
	Math	14	Scientific	43
	Social Studies	26	Persuasive	84
			Artistic	68
			Literary	42
			Musical	27
			Social Service	65
			Clerical	79

HOME-ROOM TEACHER:

Below average student, quite limited in ability and achievement. Careless about his work. Dislikes school.

ADVISOR:

Ability and achievement are both limited.

YEARLY RECORD FOR GRADE 10

NAME Michael Vaughan AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
OTIS: 107	Reading	23	Mechanical	21
	Science	24	Computational	18
	Math	26	Scientific	24
	Social Studies	24	Persuasive	36
			Artistic	41
			Literary	32
			Musical	58
			Social Service	85
			Clerical	79

HOME-ROOM TEACHER:

A very hard working student. Gets good grades.

ADVISOR:

Mike plans to become a high school science teacher and I have encouraged him in this. I talked with his chemistry teacher who told me of the excellent work Mike did on his science projects. It seems as though he spent more time and did a more thorough job than anyone else in the class.

YEARLY RECORD FOR GRADE 10

NAME Robert **Elliott** AGE 16

INTELLIGENCE	ACHIEVEMENT	PERCENTILE	KUDER PROFILE	PERCENTILE
CTMM: 108	Reading	24		
	Science	26		
	Math	26		
	Social Studies	23		

HOME-ROOM TEACHER:

Robert is a capable and hard-working student. He does good work in all of his classes. His ability is well above average.

ADVISOR:

Plans to become a chemist or a physician. Does excellent work in his science classes.

APPENDIX C

Fall 1959 Questionnaire

QUESTIONNAIRE BOOKLET
FOR
PARTICIPATING TEACHERS

Autumn, 1959

YOUR NAME: ____________________

NAME OF SCHOOL: ____________________

LOCATION OF SCHOOL (CITY): ____________________

All responses will be kept strictly confidential.

Bureau of Educational Research
University of Illinois
utr-si

Section I

STUDENT PROBLEMS

The following pages contain twelve problems of a type familiar to many teachers. In the sample problem which you worked through with the interviewer you were asked to do three things:

1. Write out a "working guess" about the causes of the trouble.
2. Select three kinds of information which would help you to check your guess, numbering these "1", "2", "3" to indicate their order of importance.
3. Check the method you would use to obtain each kind of information you have numbered.

Please do these same three things for each of the twelve problems.

-- SAMPLE PROBLEM --

Leona Bursar seems a bright girl, but you can get her to do very little work in your class. She never has her work in on time and she does almost no outside reading. You have tried to talk to her, but she shuts up like a clam, giving no hint of a reason for her lack of interest.

As a "working guess," where would you say the source of this difficulty might lie? (Please use only a brief phrase or two.)

If you wanted to check up on your "working guess," what additional kinds of information would you seek? After "Type of Information" below, please number "1" the type you feel would be most useful to you in this case, "2" the next most useful, and "3" the third most useful. You need number no more than three.

	Achievement in school subjects	Family and home life	Intelligence	Fears and worries	Interests and ambitions	Personability and character
TYPE OF INFORMATION:						

NEXT, under each type of information you have numbered, check the one method of obtaining the information which you believe would be best.

METHOD OF OBTAINING THE INFORMATION:

Observe the student in various kinds of situations						
Make discreet inquiries of classmates who know the student well						
Confer with the student						
Confer with the parents						
Confer with other teachers						
Consult the files for test score information						
Consult the files for non-test information such as grades, anecdotal comments, etc.						

Problem 1

Joan McCauley has not turned in a single assignment since the beginning of the year. You have warned her that failure to turn in her home-work will result in her failing the course, but this has had no effect. She sits and day-dreams most of the time she is in class.

As a working guess, where would you say the source of this difficulty might lie?

To check up on your working guess, what additional kinds of information would you seek? Please number the types of information (no more than three), and then check the best method of obtaining each of the types you have numbered.

	Achievement in school subjects	Family and home life	Intelligence	Fears and worries	Interests and ambitions	Personality and character
TYPE OF INFORMATION:						
METHOD OF OBTAINING INFORMATION:						
Observe the student in various kinds of situations						
Make discreet inquiries of classmates who know the student well						
Confer with the student						
Confer with the parents						
Confer with other teachers						
Consult the files for test score information						
Consult the files for non-test information such as grades, anecdotal comments, etc.						

Problem 2

Bill Walters tells you that he has applied to two different universities and has been accepted by both. At University A he applied for entrance in the pre-law curriculum, and at University B he applied for entrance in the pre-medical curriculum. He says he doesn't know how to decide which college to attend.

As a working guess, where would you say the source of this difficulty might lie?

To check up on your working guess, what additional kinds of information would you seek? Please number the types of information (no more than three), and then check the best method of obtaining each of the types you have numbered.

	Achievement in school subjects	Family and home life	Intelligence	Fears and worries	Interests and ambitions	Personality and character
TYPE OF INFORMATION:						
METHOD OF OBTAINING INFORMATION:						
Observe the student in various kinds of situations						
Make discreet inquiries of classmates who know the student well						
Confer with the student						
Confer with the parents						
Confer with other teachers						
Consult the files for test score information						
Consult the files for non-test information such as grades, anecdotal comments, etc.						

Problem 3

Thomas McElroy has been reported for tardiness almost every day since school began.

As a working guess, where would you say the source of this difficulty might lie?

____

To check up on your working guess, what additional kinds of information would you seek? Please number the types of information (no more than three), and then check the best method of obtaining each of the types you have numbered.

	Achievement in school subjects	Family and home life	Intelligence	Fears and worries	Interests and ambitions	Personality and character
TYPE OF INFORMATION:	____	____	____	____	____	____
METHOD OF OBTAINING INFORMATION:						
Observe the student in various kinds of situations	____	____	____	____	____	____
Make discreet inquiries of classmates who know the student well	____	____	____	____	____	____
Confer with the student	____	____	____	____	____	____
Confer with the parents	____	____	____	____	____	____
Confer with other teachers	____	____	____	____	____	____
Consult the files for test score information	____	____	____	____	____	____
Consult the files for non-test information such as grades, anecdotal comments, etc.	____	____	____	____	____	____

Problem 4

Doris is a shy, withdrawn girl who is always alone and seems to have no friends whatsoever. Her appearance is entirely presentable and she is in good health. She confides to a teacher that she wishes she knew how to make friends.

As a working guess, where would you say the source of this difficulty might lie?

____

To check up on your working guess, what additional kinds of information would you seek? Please number the types of information (no more than three), and then check the best method of obtaining each of the types you have numbered.

	Achievement in school subjects	Family and home life	Intelligence	Fears and worries	Interests and ambitions	Personality and character
TYPE OF INFORMATION:	____	____	____	____	____	____
METHOD OF OBTAINING INFORMATION:						
Observe the student in various kinds of situations	____	____	____	____	____	____
Make discreet inquiries of classmates who know the student well	____	____	____	____	____	____
Confer with the student	____	____	____	____	____	____
Confer with the parents	____	____	____	____	____	____
Confer with other teachers	____	____	____	____	____	____
Consult the files for test score information	____	____	____	____	____	____
Consult the files for non-test information such as grades, anecdotal comments, etc.	____	____	____	____	____	____

Problem 5

John is a bright student and does well in every class except your own. He consults you about dropping it and taking another subject in its place. He tells you that he took your course only because his best friend had signed up for it and talked him into it.

As a working guess, where would you say the source of this difficulty might lie?

____

To check up on your working guess, what additional kinds of information would you seek? Please number the types of information (no more than three), and then check the best method of obtaining each of the types you have numbered.

	Achievement in school subjects	Family and home life	Intelligence	Fears and worries	Interests and ambitions	Personality and character
TYPE OF INFORMATION:	______	______	______	______	______	______
METHOD OF OBTAINING INFORMATION:						
Observe the student in various kinds of situations	____	____	____	____	____	____
Make discreet inquiries of classmates who know the student well	____	____	____	____	____	____
Confer with the student	____	____	____	____	____	____
Confer with the parents	____	____	____	____	____	____
Confer with other teachers	____	____	____	____	____	____
Consult the files for test score information	____	____	____	____	____	____
Consult the files for non-test information such as grades, anecdotal comments, etc.	____	____	____	____	____	____

Problem 6

Virginia Smith's parents want their daughter to go on to college, and Virginia herself wants very much to go. However, she has no idea what to major in.

As a working guess, where would you say the source of this difficulty might lie?

____

To check up on your working guess, what additional kinds of information would you seek? Please number the types of information (no more than three), and then check the best method of obtaining each of the types you have numbered.

	Achievement in school subjects	Family and home life	Intelligence	Fears and worries	Interests and ambitions	Personality and character
TYPE OF INFORMATION:	______	______	______	______	______	______
METHOD OF OBTAINING INFORMATION:						
Observe the student in various kinds of situations	____	____	____	____	____	____
Make discreet inquiries of classmates who know the student well	____	____	____	____	____	____
Confer with the student	____	____	____	____	____	____
Confer with the parents	____	____	____	____	____	____
Confer with other teachers	____	____	____	____	____	____
Consult the files for test score information	____	____	____	____	____	____
Consult the files for non-test information such as grades, anecdotal comments, etc.	____	____	____	____	____	____

Problem 7

Jim has been sent to the principal's office by two different teachers for his rude and sarcastic behavior in their classes. His view of every instance is, "The teacher started it."

As a working guess, where would you say the source of this difficulty might lie?

____

To check up on your working guess, what additional kinds of information would you seek? Please number the types of information (no more than three), and then check the best method of obtaining each of the types you have numbered.

	Achievement in school subjects	Family and home life	Intelligence	Fears and worries	Interests and ambitions	Personality and character
TYPE OF INFORMATION:	____	____	____	____	____	____
METHOD OF OBTAINING INFORMATION:						
Observe the student in various kinds of situations	____	____	____	____	____	____
Make discreet inquiries of classmates who know the student well	____	____	____	____	____	____
Confer with the student	____	____	____	____	____	____
Confer with the parents	____	____	____	____	____	____
Confer with other teachers	____	____	____	____	____	____
Consult the files for test score information	____	____	____	____	____	____
Consult the files for non-test information such as grades, anecdotal comments, etc.	____	____	____	____	____	____

Problem 8

Marie Wilson had a committee report to give. When she began to read it she burst into tears and fled from the room. The teacher tried to find out what was wrong but got nowhere. Marie has refused to take part in any oral work since that time.

As a working guess, where would you say the source of this difficulty might lie?

____

To check up on your working guess, what additional kinds of information would you seek? Please number the types of information (no more than three), and then check the best method of obtaining each of the types you have numbered.

	Achievement in school subjects	Family and home life	Intelligence	Fears and worries	Interests and ambitions	Personality and character
TYPE OF INFORMATION:	____	____	____	____	____	____
METHOD OF OBTAINING INFORMATION:						
Observe the student in various kinds of situations	____	____	____	____	____	____
Make discreet inquiries of classmates who know the student well	____	____	____	____	____	____
Confer with the student	____	____	____	____	____	____
Confer with the parents	____	____	____	____	____	____
Confer with other teachers	____	____	____	____	____	____
Consult the files for test score information	____	____	____	____	____	____
Consult the files for non-test information such as grades, anecdotal comments, etc.	____	____	____	____	____	____

Problem 9

Eve tells you she is planning to quit school and get a job. She says she hates school and doesn't see why she should stay to graduate. She says her parents will let her quit if the teachers think it is alright for her to do so.

As a working guess, where would you say the source of this difficulty might lie?

To check up on your working guess, what additional kinds of information would you seek? Please number the types of information (no more than three), and then check the best method of obtaining each of the types you have numbered.

	Achievement in school subjects	Family and home life	Intelligence	Fears and worries	Interests and ambitions	Personality and character
TYPE OF INFORMATION:						
METHOD OF OBTAINING INFORMATION:						
Observe the student in various kinds of situations						
Make discreet inquiries of classmates who know the student well						
Confer with the student						
Confer with the parents						
Confer with other teachers						
Consult the files for test score information						
Consult the files for non-test information such as grades, anecdotal comments, etc.						

Problem 10

Marvin Ohlsen is a real problem. He enrolled in the college preparatory curriculum in ninth grade, but then switched to shop in the middle of the year. He continued in shop courses all through the tenth grade, but now he has asked to be transferred back into the college preparatory curriculum because he says he wants to go to college and study engineering.

As a working guess, where would you say the source of this difficulty might lie?

____

To check up on your working guess, what additional kinds of information would you seek? Please number the types of information (no more than three), and then check the best method of obtaining each of the types you have numbered.

	Achievement in school subjects	Family and home life	Intelligence	Fears and worries	Interests and ambitions	Personality and character
TYPE OF INFORMATION:	____	____	____	____	____	____
METHOD OF OBTAINING INFORMATION:						
Observe the student in various kinds of situations	____	____	____	____	____	____
Make discreet inquiries of classmates who know the student well	____	____	____	____	____	____
Confer with the student	____	____	____	____	____	____
Confer with the parents	____	____	____	____	____	____
Confer with other teachers	____	____	____	____	____	____
Consult the files for test score information	____	____	____	____	____	____
Consult the files for non-test information such as grades, anecdotal comments, etc.	____	____	____	____	____	____

Problem 11

Jane Evans was caught smoking in the girl's lavatory. The principal told her she would be expelled if it happened again. Jane says she doesn't care whether she is expelled or not, and that she will smoke whenever it pleases her.

As a working guess, where would you say the source of this difficulty might lie?

____

To check up on your working guess, what additional kinds of information would you seek? Please number the types of information (no more than three), and then check the best method of obtaining each of the types you have numbered.

	Achievement in school subjects	Family and home life	Intelligence	Fears and worries	Interests and ambitions	Personality and character
TYPE OF INFORMATION:	____	____	____	____	____	____
METHOD OF OBTAINING INFORMATION:						
Observe the student in various kinds of situations	____	____	____	____	____	____
Make discreet inquiries of classmates who know the student well	____	____	____	____	____	____
Confer with the student	____	____	____	____	____	____
Confer with the parents	____	____	____	____	____	____
Confer with other teachers	____	____	____	____	____	____
Consult the files for test score information	____	____	____	____	____	____
Consult the files for non-test information such as grades, anecdotal comments, etc.	____	____	____	____	____	____

Problem 12

Glen's teachers report that the boy comes to school so tired every day that he is always falling asleep in their classes. The school physician reports that he is basically in good health.

As a working guess, where would you say the source of this difficulty might lie?

To check up on your working guess, what additional kinds of information would you seek? Please number the types of information (no more than three), and then check the best method of obtaining each of the types you have numbered.

	Achievement in school subjects	Family and home life	Intelligence	Fears and worries	Interests and ambitions	Personality and character
TYPE OF INFORMATION:						
METHOD OF OBTAINING INFORMATION:						
Observe the student in various kinds of situations						
Make discreet inquiries of classmates who know the student well						
Confer with the student						
Confer with the parents						
Confer with other teachers						
Consult the files for test score information						
Consult the files for non-test information such as grades, anecdotal comments, etc.						

Problem 13

George Merwin is a transfer student new to the school this year. He was placed in the eleventh grade--as indicated by his transfer record--yet he is doing failing work in your class, and other teachers have told you that he is failing in theirs also.

As a working guess, where would you say the source of this difficulty might lie?

____

To check up on your working guess, what additional kinds of information would you seek? Please number the types of information (no more than three), and then check the best method of obtaining each of the types you have numbered.

	Achievement in school subjects	Family and home life	Intelligence	Fears and worries	Interests and ambitions	Personality and character
TYPE OF INFORMATION:	______	______	______	______	______	______
METHOD OF OBTAINING INFORMATION:						
Observe the student in various kinds of situations	____	____	____	____	____	____
Make discreet inquiries of classmates who know the student well	____	____	____	____	____	____
Confer with the student	____	____	____	____	____	____
Confer with the parents	____	____	____	____	____	____
Confer with other teachers	____	____	____	____	____	____
Consult the files for non-test information such as grades, anecdotal comments, etc.	____	____	____	____	____	____

Problem 14

Kay Johnson is enrolled in the college preparatory curriculum but is doing below average and failing work in mathematics and science. Her parents come to school at frequent intervals to talk to the teachers of these subjects, but Kay's work shows no improvement. Kay is active in every kind of school dramatics and has recently signed up to try out for the lead in the high school play. When reminded that she was doing failing work in some of her classes she said she didn't care as long as she passed.

As a working guess, where would you say the source of this difficulty might lie?

____

To check up on your working guess, what additional kinds of information would you seek? Please number the types of information (no more than three), and then check the best method of obtaining each of the types you have numbered.

	Achievement in school subjects	Family and home life	Intelligence	Fears and worries	Interests and ambitions	Personality and character
TYPE OF INFORMATION	______	______	______	______	______	______
METHOD OF OBTAINING INFORMATION:						
Observe the student in various kinds of situations	____	____	____	____	____	____
Make discreet inquiries of classmates who know the student well	____	____	____	____	____	____
Confer with the student	____	____	____	____	____	____
Confer with the parents	____	____	____	____	____	____
Confer with other teachers	____	____	____	____	____	____
Consult the files for test score information	____	____	____	____	____	____
Consult the files for non-test information such as grades, anecdotal comments, etc.	____	____	____	____	____	____

Problem 15

Andy Wilson causes trouble for every teacher who has him. His classroom behavior is disruptive. He is constantly doing small things like shooting paper-wads, blowing bubbles with his gum and allowing them to pop noisily, deliberately dropping his books on the floor, deliberately tripping himself when he goes to the pencil sharpener, etc.

As a working guess, where would you say the source of this difficulty might lie?

____

To check up on your working guess, what additional kinds of information would you seek? Please number the types of information (no more than three), and then check the best method of obtaining each of the types you have numbered.

	Achievement in school subjects	Family and home life	Intelligence	Fears and worries	Interests and ambitions	Personality and character
TYPE OF INFORMATION:	________	________	________	________	________	________
METHOD OF OBTAINING INFORMATION:						
Observe the student in various kinds of situations	____	____	____	____	____	____
Make discreet inquiries of classmates who know the student well	____	____	____	____	____	____
Confer with the student	____	____	____	____	____	____
Confer with the parents	____	____	____	____	____	____
Confer with other teachers	____	____	____	____	____	____
Consult the files for test score information	____	____	____	____	____	____
Consult the files for non-test information such as grades, anecdotal comments, etc.	____	____	____	____	____	____

Problem 16

Jill's teachers report that the girl is constantly lying. On one occasion she told the math teacher that she couldn't take a test because her father was seriously ill and she was so worried about him that she couldn't study. On another occasion she told the English teacher that her mother had accidently burned up the theme she had prepared for class. On still another occasion she told the physical education teacher that she had broken her toe and couldn't play basketball. All of these things were completely false.

As a working guess, where would you say the source of this difficulty might lie?

____

To check up on your working guess, what additional kinds of information would you seek? Please number the types of information (no more than three), and then check the best method of obtaining each of the types you have numbered.

	Achievement in school subjects	Family and home life	Intelligence	Fears and worries	Interests and ambitions	Personality and character
TYPE OF INFORMATION:						
METHOD OF OBTAINING INFORMATION:						
Observe the student in various kinds of situations						
Make discreet inquiries of classmates who know the student well						
Confer with the student						
Confer with the parents						
Confer with other teachers						
Consult the files for test score information						
Consult the files for non-test information such as grades, anecdotal comments, etc.						

Section II

THE COUNSELING ROLE

This part concerns the work of ____________________________.

NOTE: As in every part of this questionnaire booklet, the information you give will be kept completely confidential. Your answers will NOT be conveyed to the person named, nor to the administration, nor to anyone else. Only general summaries, with persons and schools unidentifiable, will be reported outside our research office.

In this part of the questionnaire we would like to find out about the duties and responsibilities of the person named above, who is a member of your faculty. The next few pages consist of things that a person who does counseling might be expected to do. Obviously, no one counselor is expected to do all of these things, and no two schools expect exactly the same things of a counselor. What we wish to learn is what you as a member of the faculty expect of the person named.

As you read each item on the list, please ask yourself three questions:

1. Expectation: Is the person named above expected to do this as a regular part of his job? Circle Yes, No, or Uncertain, answering according to the best of your knowledge.

2. Ability: How well does the above named person do this? --or how well do you think he could do it if the occasion arose? Circle Well, Adequately, Poorly; circle Uncertain if you feel your basis for judgement is insufficient.

3. Appropriateness: Do you think this should be expected of an individual in the job held by the above named person? Please answer without regard to your other answers to the item. Circle Yes, No, DM (it doesn't matter either way), or Uncertain.

	Duty or Responsibility	Expectation	Ability	Appropriateness
1.	Compile and arrange a file of selected information about students which is freely accessible to all teachers.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
2.	Make a study of test and other data and draw up a general report for the principal regarding the student body at large.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
3.	Arrange for and supervise the scoring of group tests by clerks (not faculty) inside the school.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
4.	Invite teachers to group meetings to learn more about the interpretation of tests.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
5.	Notify all students that certain test data have been received and encourage them to come in for conference regarding them.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
6.	Act as a first level of referral for disciplinary and truancy problems.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
7.	Advise on grouping students into ability levels and on routing them into various courses of study. (College preparatory, vocational, etc.)	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
8.	Establish regular conferences with individual teachers to discuss actual student cases.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
9.	Administer individual tests when requested by other staff members.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
10.	Conduct a study of student needs and use the results to plan the conduct of counseling services.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc

Duty or Responsibility	Expectation	Ability	Appropriateness
11. Set up a schedule of group testing times for the total student body and see that persons are appointed to carry it out.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
12. Conduct occasional home-room periods for teachers as demonstrations of group counseling.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
13. Find summer or after-school jobs for students and assist in the supervision of work-experience programs (part-time work associated with vocational classes.)	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
14. Explain to parents (when they ask) the general meaning of certain of their child's test results and confer with those who come in with problems concerning their children.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
15. Conduct small faculty "case conferences" meetings on particular students in which test and other data are brought into proper perspective.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
16. Make out class schedules for the principal.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
17. Compute local school norms for tests.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
18. Be responsible for such things as re-admitting students after absences, transferring students to other schools, etc.	Yes No Unc	Well Addq Poor Unc	Yes No DM Unc
19. Conduct group meetings with students to discuss general questions of curriculum and course selection, and how test scores can help answer those questions.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
20. Advise principal or other administrative staff regarding the specific tests to be included in the school's testing program.	Yes No Unc	Well Adeq Poor Unc	Yes No Dm Unc

Duty or Responsibility	Expectation	Ability	Appropriateness
21. Teach at least one regular subject-matter class. (e.g., math, English, etc.)	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
22. Do therapeutic counseling to help the student understand himself--his motives, etc.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
23. Assist staff members in deciding which students should be enrolled in certain courses (e.g. algebra vs general math, chemistry vs general science, etc.).	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
24. Conduct large group meetings with parents (for example, at PTA) to explain and interpret test scores in general terms.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
25. Administer individual tests (such as the Binet).	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
26. Counsel students regarding choice of high school courses and curricula.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
27. Maintain the cumulative student record files.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
28. Conduct a general faculty meeting to plan the schedule of group testing times.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
29. Act as a first level of referral for failing students.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
30. Set up a schedule of required conferences with all students regarding their test results.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc

Duty or Responsibility	Expectation	Ability	Appropriateness
31. Conduct special classes in "careers", "group guidance", "marriage", etc.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
32. Conduct meetings scheduled by authority of the principal in which teachers can learn more about the techniques, purposes, and values of counseling.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
33. Assist teachers to build their own files for the students in their classes (or in their homerooms).	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
34. Arrange for and supervise the scoring of group tests by the faculty.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
35. Counsel students regarding religious problems.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
36. Conduct special remedial classes in areas such as reading, study skills, etc.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
37. Administer all group tests with minimal help from other staff members.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
38. Send written notice to all staff members that test data have been received and are available.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
39. Give a larger share of attention to gifted students than to average and retarded students.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
40. Counsel students regarding choice of college.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc

Duty or Responsibility	Expectation	Ability	Appropriateness
41. Have an extra-curricular club.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
42. Conduct meetings scheduled by authority of the principal in which teachers can learn more about the interpretation of tests.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
43. Arrange for all group tests to be scored in the guidance office.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
44. Confer with teachers regarding general problems of motivation, discipline, etc.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
45. Conduct general faculty planning meetings to discuss staff needs with regard to the kinds of tests that would be most useful.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
46. Make a study of test data and select particular parents to be called in for conference.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
47. Arrange for group tests to be scored by agencies outside the school.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
48. Conduct small group faculty meetings to discuss the interpretation and use of tests to help solve problems specific to that group (e.g. science department, language department, etc.)	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
49. Do general substitute teaching.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
50. Counsel students regarding choice of a vocation.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc

Duty or Responsibility	Expectation	Ability	Appropriateness
51. Invite teachers to group meetings to learn more about the aims, techniques and values of counseling.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
52. Spend at least some time each year counseling every student, even though many students are less urgent than others.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
53. Conduct a general faculty briefing meeting after test data are received and discuss the results and possible uses in general terms.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
54. Arrange for referral of students to special agencies outside the school for testing and other special help.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
55. Make a study of test data and select particular students to be called in for conference.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
56. Have hall duty.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
57. Notify all parents that certain test results have been received and encourage them to come in for conferences.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
58. Conduct a general faculty meeting to instruct the staff regarding their duties in administering and proctoring tests.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
59. Counsel students regarding health problems.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
60. Keep tardiness and absence records.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc

Duty or Responsibility	Expectation	Ability	Appropriateness
61. Hold small group faculty meetings to discuss the particular needs of various departments (such as Science, Industrial Arts, Language, etc.) in regard to the kinds of tests that would be most useful.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
62. Be responsible for the communication with service organizations such as Rotary, Lions, etc. (Be expected to give luncheon talks, etc.)	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
63. Have a study hall.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
64. Carry out a schedule of group testing times set up by the administration.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
65. Be responsible for the student government organization.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
66. Meet with students as a group and discuss their test results in general terms	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
67. Provide students with a written record of their test results (in some form) to take home.	Yes No Unc	Well Adeq Poor Unc	Yess No DM Unc
68. Confer with individual teachers regarding the kinds of tests they might need in their own work.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
69. Counsel students regarding family and other types of emotional problems.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc
70. Chaperone school dances, athletic events, etc.	Yes No Unc	Well Adeq Poor Unc	Yes No DM Unc

Section III

TEST PRACTICES AND ATTITUDES

This part of the questionnaire concerns the testing program in your school and the attitudes of other staff members regarding it. Please read all questions carefully.

1. Below is a list of six different kinds of published tests. On the line to the right of each one, place a check if you think your school ought to administer it to students.

   Intelligence ___

   Academic Aptitude ___

   Achievement in Subject Fields ___

   Achievement in Reading ___

   Interest ___

   Personality ___

2. About how many of the other teachers in your school do you think would check the tests you did? (Make the best guess you can if you are not sure.)

   Almost all ___

   More than half ___

   Less than half ___

   Almost none ___

3. Which of the following types of tests are presently administered to students in your school?

   Intelligence ___

   Academic Aptitude ___

   Achievement in Subject Fields ___

   Achievement in Reading ___

   Interest ___

   Personality ___

4. Here are three commonly held attitudes regarding a student's scores on standardized tests.

   A. A test score is a valuable piece of information which answers many of the questions I have about my students.

   B. A test score is a valuable piece of information useful in raising important questions in my mind about my students.

   C. A test score is an interesting piece of technical information but possesses little or no value for the on-going activities of the classroom.

5. How many of the teachers in your school would you say hold Attitude A? If you can make even a very rough guess, please check one of the proportions below.

Almost all ___
More than half ___
Less than half ___
Almost none ___
Don't know ___

6. How many would you say hold Attitude B?

Almost all ___
More than half ___
Less than half ___
Almost none ___
Don't know ___

7. How many would you say hold Attitude C?

Almost all ___
More than half ___
Less than half ___
Almost none ___
Don't know ___

8. Of these attitudes, which one comes closest to the one you think teachers ought to hold?

Attitude A___ Attitude B___ Attidude C___

Other____

____

9. In talking with other teachers about students, do you discuss the results of standardized (published) tests with them?

Frequently___
Sometimes ___
Rarely___
Never ___

10. How much formal training have you had in the areas of testing? (Please count in rough equivalents for workshops, institutes, in-service training, etc.)

More than three courses___
Three courses ___

Two courses___
One course ___
None ___

11. How do teachers in your school find out what test scores (on standardized tests) their students made, once their scores are reported to the school? Please check the space marked "1" after every method which is used in your school. (Do not use the spaces marked "2" as yet.)

Scores are kept in the administration office and any may look them up who wish. ___1 ___2

Scores are kept in a particular office and the appointed person will discuss the test results with any teacher who asks. ___1 ___2

Reports of results in some form are given to the teacher to give to the students, and the teacher can look them over before handing them out. ___1 ___2

Copies of actual scores are given to the teacher for the teacher to keep. ___1 ___2

Copies of test results in descriptive form (not actual scores) are given to the teacher for the teacher to keep. ___1 ___2

Group meetings are held at which test results are explained and discussed with the teachers. ___1 ___2

Conferences are scheduled with individual teachers to discuss test results. ___1 ___2

Other ________________________________ ___1 ___2

12. Which of the methods of transmitting test results listed just above are a good idea? Please go back over the list and mark in the space labeled "2" those methods which you think should be used in your school. Mark those which, if now used, you believe should be continued, and also those which, if not now used, you believe should be put into effect.

13. Please write here the names of members of your school staff whose judgment about counseling or testing you highly respect. (If none, please write "none.")

14. Please write here the names of members of your school staff whose conversation or presence you particularly enjoy. Please list names without regard to the topics of conversation; any kind of conversation is appropriate to this question. (If none, write "none.")

Section IV

EDUCATIONAL VIEWPOINTS

Below is a list of statements about which different people have different opinions. None of the statements has a "right" answer because all are matters of opinion. We are interested in obtaining your opinions about these matters. Please read each statement and circle:

SA: if you strongly agree with the statement.
A: if on the whole you would tend to agree.
U: if you are undecided.
D: if on the whole you would tend to disagree.
SD: if you strongly disagree with the statement.

1. The goal of education is not mastery of content but well-adjusted citizens. SA A U D SD
2. All pupils who have the ability should take as much science, mathematics and language as possible. SA A U D SD
3. To be worthwhile, education must be practical. SA A U D SD
4. Our schools fail to develop students' ability to think critically. SA A U D SD
5. "B" students usually make better teachers than "A" students. SA A U D SD
6. Usually the same children make the high marks on various tests of school ability. SA A U D SD
7. Shop work requires abstract reasoning. SA A U D SD
8. On the first day of school the teacher should receive intelligence and achievement test scores for his pupils. SA A U D SD
9. Honors courses should be established for bright pupils. SA A U D SD
10. Teachers should discuss with parents their child's level of ability and school achievement. SA A U D SD
11. Schools are, in general, geared to the average child. SA A U D SD
12. Some pupils could profitably leave school and take jobs at the age of sixteen. SA A U D SD
13. Shop courses are better for below-average pupils than for bright ones. SA A U D SD
14. College entrance subjects should be taken only by pupils bright enough to attend college. SA A U D SD

15. Pupils are given too many short answer tests and not enough essay tests. SA A U D SD

16. A mark of "A" in a subject should be given only to pupils with very high achievement. SA A U D SD

17. The school report card should give greater emphasis to academic achievement than to work habits and personality traits. SA A U D SD

18. Pupils with the same test scores should receive the same grades. SA A U D SD

19. A student's grade in a course should represent his level of academic achievement, not his work habits and personality. SA A U D SD

20. Parents and students have the right to discuss, but not question, the marks the teacher gives. SA A U D SD

21. If a teacher grades pupils accurately, his grades will place them in the same general order as will a good standardized achievement test. SA A U D SD

22. Only the teacher who has taught the pupils and knows what they have studied can make a valid evaluation of their achievement. SA A U D SD

23. The best single predictor of success in college is the high school record. SA A U D SD

24. The idea of a nation-wide testing program of abilities is a good one. SA A U D SD

25. Schools that rank above the national norms on tests are better than schools that rank below the national norms. SA A U D SD

26. There should be a national standard for the high school diploma. SA A U D SD

27. A teacher should have his students evaluate his teaching. SA A U D SD

28. Pupils who have difficulty in school should take commercial or shop courses. SA A U D SD

Section V

SELF PERCEPTION CHECK-LIST

This part of the questionnaire will provide information which will be of value to us in working with you and your colleagues during the coming year. Please try to answer the questions not to show how you think you ought to be, but rather how you believe you really are.

		Please circle one		
		Yes	Undecided	No
1.	Do you often feel that you must discuss something you have read before you will really understand or remember it?	Y	?	N
2.	Do you frequently get into a state of tension and turmoil by thinking over the day's happenings?	Y	?	N
3.	Have you usually been optimistic about your future?	Y	?	N
4.	Are you able to criticize people without hurting their feelings?	Y	?	N
5.	Do you like to do your planning alone, without suggestions from or discussions with other people?	Y	?	N
6.	Do you often find it difficult to go to sleep at night because you keep thinking of what happened during the day?	Y	?	N
7.	Do you sometimes feel "just miserable" for no good reason at all?	Y	?	No
8.	Do you tend to get over-excited and easily "rattled" in exciting situations?	Y	?	No
9.	Are you generally free from worry about possible misfortunes?	Y	?	N
10.	When you do something, do you always know just why you have done it?	Y	?	N
11.	Do you like working alone?	Y	?	N
12.	Do you think that through being calm and cool you use up less energy than most people in getting things done?	Y	?	N

	Please circle one		
	Yes	Undecided	No
13. Have you ever had a sudden sense of dread and vague danger without knowing why?	Y	?	N
14. Do you usually act the same way under the same circumstances?	Y	?	N
15. Do you often feel guilty without a very good reason for it?	Y	?	N
16. Do you have a keener sense of humor than most of your friends?	Y	?	N
17. Does it help you to discuss a problem with others before coming to a decision?	Y	?	N
18. Are you so shy it bothers you?	Y	?	N
19. Do you sometimes avoid social contacts for fear of doing or saying the wrong things?	Y	?	N
20. Do you think you understand yourself better than the average person understands himself?	Y	?	N
21. Does it bother you to have someone offer you advice when you haven't asked for it?	Y	?	N
22. Do you feel lonesome even when with other people?	Y	?	N
23. Are your nerves sometimes "on edge," so that particular sounds, such as a screechy hinge, are unbearable and "give you shivers"?	Y	?	N
24. Have you often lost sleep over your worries?	Y	?	N

COMMENTS

Please use this space for any further comments you may have, either concerning the answers you have given, or about the questionnaire itself.

APPENDIX D

Spring 1960 Questionnaire

QUESTIONNAIRE BOOKLET

FOR

PARTICIPATING FACULTY MEMBERS

SPRING -- 1960

Name______________________________________

School_____________________________________

All responses will be kept strictly confidential

Bureau of Educational Research
University of Illinois
utr-si

INSTRUCTIONS: Please make an X in the blank beside the answer you prefer. (The numerals beside the blanks and in the margin have no meaning -- they are merely to be used to translate the answers into machine language.)

SECTION I

Please do not write in this margin

General Information

1. What is the highest degree you hold?
None ___ 0
Bachelor's degree ___ 3
Master's degree ___ 4 — 9
Advanced Certificate in Education ___ 5
Doctor's degree ___ 6

2. How much additional college work have you taken since obtaining this degree?

Please indicate whether your work was in:

quarter hours ___ and write — 10 ☐
semester hours ___ the number of
Univ. of Ill. units ___ them here ________

3. How much formal training have you had in the technicalities of testing and measurement? Please count in rough equivalents for workshops, institutes, in-service training, etc.

None ___ 0 Two courses ___ 2 — 11
One course ___ 1 Three courses ___ 3
More than three ___ 4

4. Below is a list of six different kinds of published tests. On the line to the right of each one, place an X if you think your school ought to administer it to students.

Intelligence ___ — 12 ☐
Academic aptitude ___ — 13 ☐
Achievement in subject fields ___ — 14 ☐
Achievement in reading ___ — 15 ☐
Interests ___ — 16 ☐
Personality ___ — 17 ☐

5. Which of the following types of tests are presently administered to students in your school? — 18 ☐

Intelligence ___ — 19 ☐
Academic aptitude ___ — 20 ☐
Achievement in subject fields ___ — 21 ☐
Achievement in reading ___ — 22 ☐
Interests ___ — 23 ☐
Personality ___ — 24 ☐

25 ☐

26 ☐

Please do not write in this margin

6. Practically all schools keep some kind of cumulative records on their students which are available to teachers. Do you feel that the information which your school obtains and files about students is sufficient?

Yes ___ No ___ Uncertain ___ 27
1 0 2

(Use this space if you care to comment.) ______________________ 28☐

____

____

7. How do teachers in your school find out students' standardized test scores once their scores are reported to the school? Please check the space marked "1" after every method which is used in your school. (Do not use the spaces marked "2" as yet.)

Scores are kept in an administration office and any may look them up who wish.	___ 1	___ 2	29☐
Scores are kept in a particular office and an appointed person will discuss the results with any teacher who asks.	___ 1	___ 2	30☐
Reports of results in some form are given to the teacher to give to the students, and the teacher can look them over before handing them out.	___ 1	___ 2	31☐
Copies of actual scores are given to the teacher for the teacher to keep.	___ 1	___ 2	32☐
Copies of test results in descriptive form (not actual scores) are given to the teacher for the teacher to keep.	___ 1	___ 2	33☐
Group meetings are held at which test results are explained and discussed with the teachers.	___ 1	___ 2	34☐
Conferences are scheduled with individual teachers to discuss test results.	___ 1	___ 2	35☐

8. Which of the methods of transmitting test results listed just above are a good idea? Please go back over the list and mark in the space labeled "2" those methods which you think should be used in your school. Mark those which, if now used, you believe should be continued, and also those which, if not now used, you believe should be put into effect.

Please do not write in this margin

9. Does your school provide parents with information about their children's performance on standardized (published) tests? (Exact scores need not be mentioned.)

Yes ___ 1   No ___ 0   Uncertain ___ 2   36

If yes, which of the following best describes the procedure used? Please check the space marked "1" after every method which is used in your school. (Do not use the spaces marked "2" yet.)

a) Any parent who wishes may confer with the principal or guidance counselor and receive such information. Teachers do not give such information. ___ 1 ___ 2   37 ☐

b) Any parent who wishes can confer with any teacher and receive such information. ___ 1 ___ 2   38 ☐

c) Parents whose children present academic or disciplinary problems are called in for conference and test results are used as part of the conference. ___ 1 ___ 2   39 ☐

d) All parents are invited at certain times to come in and discuss their children's progress, and test scores are used as part of these conferences. ___ 1 ___ 2   40 ☐

e) Test results (some or all) are sent to parents in written form. ___ 1 ___ 2   41 ☐

f) Other ______________________________ ___ 1 ___ 2   42 ☐

10. Which of the methods of providing parents with information about their children's test performance listed just above are a good idea? Please go back over the list and mark in the space labeled "2" those methods which you think should be used in your school. Mark those which, if now used, you believe should be continued, and also those which, if not now used, you believe should be put into effect.

11. In talking with parents about their children, do you discuss the results of standardized tests with them?

Frequently ___ 3   Rarely ___ 1   43
Sometimes ___ 2   Never ___ 0

Please do not write in this margin

12. Does your school provide students with information about their performance on standardized tests? (Exact scores need not be mentioned.)

Yes ___ 1 No ___ 0 Uncertain ___ 2 — 44

If yes, which of the following best describes the procedure used? Please check the space marked "1" after every method that is used in your school. (Do not use the spaces marked "2" yet.)

a) Teachers discuss test results with students when the occasion arises or the need occurs. This is largely at the discretion of the teacher. ___ 1 ___ 2 — 45☐

b) Counselors confer at certain times with students individually and discuss their test results in the context of the student's future plans. ___ 1 ___ 2 — 46☐

c) Students meet in groups, and an experienced teacher or counselor discusses test results and their meaning in general terms. ___ 1 ___ 2 — 47☐

d) Test results are given to the student for him to take home. ___ 1 ___ 2 — 48☐

e) Other ______________________ ___ 1 ___ 2 — 49☐

13. Which of the methods of providing students with information about their test performance listed just above are a good idea? Please go back over the list and mark in the space labeled "2" those methods which you think should be used in your school. Mark those which, if now used, you believe should be continued, and also those which, if not now used, you believe should be put into effect.

14. In talking with students about their plans and problems, do you discuss the results of standardized tests with them?

Frequently ___ 3 Rarely ___ 1
Sometimes ___ 2 Never ___ 0 — 50

Please do not write in this margin

15. Apart from the actual time you spend in the classroom, about how often do you take time out to gather information about students? (For example, looking up records, conferring with parents, consulting with the guidance counselor, etc.)

Approximately one hour per semester ___ 0 51
Approximately one hour per month ___ 1
Approximately one hour per week ___ 2
More than one hour per week ___ 3

16. How much time do you think you ought to spend in gathering information about students?

Approximately one hour per semester ___ 0 52
Approximately one hour per month ___ 1
Approximately one hour per week ___ 2
More than one hour per week ___ 3

17. If you did not check questions 15 and 16 just above in the same way, what is the chief reason for the difference?

____ 53 ☐

____

____

18. In talking with other teachers about students, do you discuss the results of standardized (published) tests with them?

Frequently ___ 3
Sometimes ___ 2
Rarely ___ 1
Never ___ 0 54

19. Here are two commonly held attitudes regarding the use of standardized tests by principals and teachers. Place an X before the attitude which is most like your own.

___ A. Principals and teachers should not use tests and test results in making decisions about students unless they have had substantial training in the technicalities of testing. 55
0

___ B. The general training which all principals and teachers receive in the course of their college work is sufficient to enable them to use tests and test results intelligently.
1

Please do not write in this margin

20. If you had to make an important decision about a student -- for example, advising him to enter or not to enter the college preparatory curriculum -- how sure would you be of the accuracy of your decision in each of the following cases?

a) You have never had the student in your class, but you have looked up his record and have found his intelligence and achievement test scores.

Very unsure about my advice ___ 0 56
Rather unsure ___ 1
Fairly sure ___ 2
Almost completely sure ___ 3

b) You have had the student in your class for one full year, but the student has not been given any intelligence or achievement tests.

Very unsure about my advice ___ 0 57
Rather unsure ___ 1
Fairly sure ___ 2
Almost completely sure ___ 3

c) You have had the student in your class for one full year, and you also know of his intelligence and achievement test scores.

Very unsure about my advice ___ 0 58
Rather unsure ___ 1
Fairly sure ___ 2
Almost completely sure ___ 3

SECTION II

Educational Viewpoints

Below is a list of statements about which different people have different opinions. None of the statements has a "right" answer because all are matters of opinion. We are interested in obtaining your opinions about these matters. Please read each statement and circle:

Please do not write in this margin

SA: if you strongly agree with the statement.
A: if on the whole you would tend to agree.
U: if you are undecided.
D: if on the whole you would tend to disagree.
SD: if you strongly disagree with the statement.

1.	The goal of education is not mastery of content but well-adjusted citizens.	SA	A	U	D	SD	59
2.	All pupils who have the ability should take as much science, mathematics and language as possible.	SA	A	U	D	SD	60
3.	To be worthwhile, education must be practical.	SA	A	U	D	SD	61
4.	Our schools fail to develop students' ability to think critically.	SA	A	U	D	SD	62
5.	On the first day of school the teacher should receive intelligence and achievement test scores for his pupils.	SA	A	U	D	SD	63
6.	Shop courses are better for below-average pupils than for bright ones.	SA	A	U	D	SD	64
7.	College entrance subjects should be taken only by pupils bright enough to attend college.	SA	A	U	D	SD	65
8.	The school report card should give greater emphasis to academic achievement than to work habits and personality traits.	SA	A	U	D	SD	66
9.	Pupils with the same test scores should receive the same grade.	SA	A	U	D	SD	67
10.	A student's grade in a course should represent his level of academic achievement, not his work habits and personality.	SA	A	U	D	SD	68
11.	Parents and students have the right to discuss, but not question, the marks the teacher gives.	SA	A	U	D	SD	69
		1	2	3	4	5	

	1	2	3	4	5	Please do not write in this margin
12. Only the teacher who has taught the pupils and knows what they have studied can make a valid evaluation of their achievement.	SA	A	U	D	SD	70
13. The best single predictor of success in college is the high school record.	SA	A	U	D	SD	71
14. A teacher should have his students evaluate his teaching.	SA	A	U	D	SD	72

SECTION III

The Counseling Role

Beginning on the next page, we would like to find out about the present duties and responsibilities of

____

who is a counselor in your school. The next few pages list things which a counselor might be expected to do. Obviously, no single counselor is expected to do all of these things, and no two schools expect exactly the same things of a counselor. What we wish to learn is what expectations exist in your school in regard to this person's work.

As you read each statement, please ask yourself two questions:

1. Expectation: Is this a duty or responsibility which is expected of this person as a regular part of his job?

   Circle Yes, No, or Uncertain

2. Appropriateness: Is this something which should be expected of an individual in the job held by the above-named person? Is it a good idea to expect this as part of his job?

   Circle Yes,
   No,
   DM (it doesn't matter either way whether he does this),
   Unc (I am uncertain whether it is a good idea to expect this of his job).

Duty or Responsibility	Expectation	Appropriateness	Please do not write in this margin
1. Compile and arrange a file of selected information about students which is freely accessible to all teachers.	Yes No Unc	Yes No DM Unc	11
2. Make a study of test and other data and draw up a general report for the principal regarding the student body at large.	Yes No Unc	Yes No DM Unc	12
3. Invite teachers to group meetings to learn more about the interpretation of tests.	Yes No Unc	Yes No DM Unc	14
4. Notify all students that certain test data have been received and encourage them to come in for conference regarding them.	Yes No Unc	Yes No DM Unc	15
5. Act as a first level of referral for disciplinary and truancy problems.	Yes No Unc	Yes No DM Unc	16
6. Advise on grouping students into ability levels and on routing them into various courses of study (College preparatory, vocational, etc.)	Yes No Unc	Yes No DM Unc	17
7. Establish regular conferences with individual teachers to discuss actual student cases.	Yes No Unc	Yes No DM Unc	18
8. Conduct a study of student needs and use the results to plan the conduct of counseling services.	Yes No Unc	Yes No DM Unc	20
9. Explain to parents (when they ask) the general meaning of certain of their child's test results and confer with those who come in with problems concerning their children.	Yes No Unc	Yes No DM Unc	24
10 Conduct small faculty "case conferences" meetings on particular students in which test and other data are brought into proper perspective.	Yes No Unc	Yes No DM Unc	25

Duty or Responsibility	Expectation	Appropriateness	Please do not write in this margin
11. Be responsible for such things as re-admitting students after absences, transferring students to other schools, etc.	Yes No Unc	Yes No DM Unc	28
12. Conduct group meetings with students to discuss general questions of curriculum and course selection, and how test scores can help answer those questions.	Yes No Unc	Yes No DM Unc	29
13. Teach at least one regular subject-matter class. (e.g., math, English, etc.)	Yes No Unc	Yes No DM Unc	31
14. Assist staff members in deciding which students should be enrolled in certain courses (e.g. algebra vs general math, chemistry vs general science, etc.)	Yes No Unc	Yes No DM Unc	33
15. Conduct large group meetings with parents (for example, at PTA) to explain and interpret test scores in general terms.	Yes No Unc	Yes No DM Unc	34
16. Maintain the cumulative student record files.	Yes No Unc	Yes No DM Unc	37
17 Act as a first level of referral for failing students.	Yes No Unc	Yes No DM Unc	39
18 Set up a schedule of required conferences with all students regarding their test results.	Yes No Unc	Yes No DM Unc	40
19 Conduct special classes in "careers", "group guidance", "marriage", etc.	Yes No Unc	Yes No DM Unc	41
20. Conduct meetings scheduled by authority of the principal in which teachers can learn more about the techniques, purposes, and values of counseling.	Yes No Unc	Yes No DM Unc	42

	Duty or Responsibility	Expectation	Appropriateness	Please do not write in this margin
21.	Assist teachers to build their own files for the students in their classes (or in their homerooms).	Yes No Unc	Yes No DM Unc	43
22.	Send written notice to all staff members that test data have been received and are available.	Yes No Unc	Yes No DM Unc	48
23.	Have an extra-curricular club.	Yes No Unc	Yes No DM Unc	51
24.	Conduct meetings scheduled by authority of the principal in which teachers can learn more about the interpretation of tests.	Yes No Unc	Yes No DM Unc	52
25.	Confer with teachers regarding general problems of motivation, discipline, etc.	Yes No Unc	Yes No DM Unc	54
26.	Conduct general faculty planning meetings to discuss staff needs with regard to the kinds of tests that would be most useful.	Yes No Unc	Yes No DM Unc	55
27.	Make a study of test data and select particular parents to be called in for conference.	Yes No Unc	Yes No DM Unc	56
28.	Arrange for group tests to be scored by agencies outside the school.	Yes No Unc	Yes No DM Unc	57
29.	Conduct small group faculty meetings to discuss the interpretation and use of tests to help solve problems specific to that group (e.g. science department, language department, etc.)	Yes No Unc	Yes No DM Unc	58
30.	Counsel students regarding choice of high school courses, high school curricula, and possible vocations.	Yes No Unc	Yes No DM Unc	60

Duty or Responsibility	Expectation	Appropriateness	Please do not write in this margin
31. Invite teachers to group meetings to learn more about the aims, techniques, and values of counseling.	Yes No Unc	Yes No DM Unc	51
32. Conduct a general faculty briefing meeting after test data are received and discuss the results and possible uses in general terms.	Yes No Unc	Yes No DM Unc	63
33. Make a study of test data and select particular students to be called in for conference.	Yes No Unc	Yes No DM Unc	65
34. Notify all parents that certain test results have been received and encourage them to come in for conferences.	Yes No Unc	Yes No DM Unc	67
35. Hold small group faculty meetings to discuss the particular needs of various departments (such as Science, Industrial Arts, Language, etc.) in regard to the kinds of tests that would be most useful.	Yes No Unc	Yes No DM Unc	71
36. Meet with students as a group and discuss their test results in general terms.	Yes No Unc	Yes No DM Unc	76
37. Confer with individual teachers regarding the kinds of tests they might need in their own work.	Yes No Unc	Yes No DM Unc	78
38. Counsel students regarding family and other types of emotional problems.	Yes No Unc	Yes No DM Unc	79
39. Chaperone school dances, athletic events, etc.	Yes No Unc	Yes No DM Unc	80

Comments

Please use this space for any further comments you may have, either concerning the answers you have given, or about the questionnaire itself.

APPENDIX E

Fall 1960 Questionnaire

QUESTIONNAIRE BOOKLET

FOR

PARTICIPATING FACULTY MEMBERS

Fall -- 1960

Name____

School______________________________________

All responses will be kept strictly confidential

Bureau of Educational Research
University of Illinois
utr-si

SECTION I

General Information

Please do not write in this margin

1. How long have you been a member of the teaching profession?

________years

2. How long have you been in this school?

9

________years

3. Below is a list of six different kinds of published tests. On the line to the right of each one, place an X if you think your school ought to administer it to students. 10 ☐

Intelligence ____ 12 ☐
Academic aptitude ____ 13 ☐
Achievement in subject fields ____ 14 ☐
Achievement in reading ____ 15 ☐
Interest ____ 16 ☐
Personality ____ 17 ☐

4. Which of the following types of tests __are__ __presently__ administered to students in your school? 18 ☐

Intelligence ____
Academic aptitude ____
Achievement in subject fields ____
Achievement in reading ____
Interests ____
Personality ____

25 ☐

26 ☐

Please do not write in this margin

5. How do teachers in your school find out students' standardized test scores once their scores are reported to the school? Please check the space marked "1" after every method which is used in your school. (Do not use the spaces marked "2" as yet.)

Scores are kept in an administration office and any may look them up who wish.	___ 1	___ 2	29 ☐
Scores are kept in a particular office and an appointed person will discuss the results with any teacher who asks.	___ 1	___ 2	30 ☐
Reports of results in some form are given to the teacher to give to the students, and the teacher can look them over before handing them out.	___ 1	___ 2	31 ☐
Copies of actual scores are given to the teacher for the teacher to keep.	___ 1	___ 2	32 ☐
Copies of test results in descriptive form (not actual scores) are given to the teacher for the teacher to keep.	___ 1	___ 2	33 ☐
Group meetings are held at which test results are explained and discussed with the teachers.	___ 1	___ 2	34 ☐
Conferences are scheduled with individual teachers to discuss test results.	___ 1	___ 2	35 ☐

6. Which of the methods of transmitting test results listed just above are a good idea? Please go back over the list and mark in the space labeled "2" those methods which you think should be used in your school. Mark those which, if now used, you believe should be continued, and also those which, if not now used, you believe should be put into effect.

Please do not write in this margin

7. Does your school provide parents with information about their children's performance on standardized (published) tests? (Exact scores need not be mentioned.)

Yes ___ 1 No ___ 0 Uncertain ___ 2 36

If yes, which of the following best describes the procedure used? Please check the space marked "1" after every method which is used in your school. (Do not use the spaces marked "2" yet.)

Any parent who wishes may confer with the principal or guidance counselor and receive such information. Teachers do not give such information.	___ 1	___ 2	37 ☐
Any parent who wishes can confer with any teacher and receive such information.	___ 1	___ 2	38 ☐
Parents whose children present academic or disciplinary problems are called in for conference and test results are used as part of the conference.	___ 1	___ 2	39 ☐
All parents are invited at certain times to come in and discuss their children's progress, and test scores are used as part of these conferences.	___ 1	___ 2	40 ☐
Test results (some or all) are sent to parents in written form.	___ 1	___ 2	41 ☐

8. Which of the methods of providing parents with information about their children's test performance listed just above are a good idea? Please go back over the list and mark in the space labeled "2" those methods which you think should be used in your school. Mark those which, if now used, you believe should be continued, and also those which, if not now used, you believe should be put into effect.

9. In talking with parents about their children, do you discuss the results of standardized tests with them?

Frequently ___ 3 Rarely ___ 1 43
Sometimes ___ 2 Never ___ 0

Please do not write in this margin

10. Does your school provide students with information about their performance on standardized tests? (Exact scores need not be mentioned.)

Yes ___ 1 No ___ 0 Uncertain ___ 2 44

If yes, which of the following best describes the procedure used? Please check the space marked "1" after every method that is used in your school. (Do not use the spaces marked "2" yet.)

Teachers discuss test results with students when the occasion arises or the need occurs. This is largely at the discretion of the teacher.	___ 1	___ 2	45 ☐
Counselors confer at certain times with students individually and discuss their test results in the context of the student's future plans.	___ 1	___ 2	46 ☐
Students meet in groups, and an experienced teacher or counselor discusses test results and their meaning in general terms.	___ 1	___ 2	47 ☐
Test results are given to the student for him to take home.	___ 1	___ 2	48 ☐

11. Which of the methods of providing students with information about their test performance listed just above are a good idea? Please go back over the list and mark in the space labeled "2" those methods which you think should be used in your school. Mark those which, if now used, you believe should be continued, and also those which, if not now used, you believe should be put into effect.

12. In talking with students about their plans and problems, do you discuss the results of standardized tests with them?

Frequently ___ 3 Rarely ___ 1 50
Sometimes ___ 2 Never ___ 0

Please do not write in this margin 51

13. About how frequently do you refer students to the school counselor for special help with their problems?

Less than once or twice each semester	____0
About once or twice each semester	____1
About once or twice each month	____2
About once or twice each week	____3

FOR TEACHERS AND ADMINISTRATORS ONLY

14. Of the students you referred to the counselor last year, (if any) approximately how many did you refer in each of the following areas? (If you referred a student for several reasons, consider only the most important category.)

Vocational:	What field to enter following high school graduation.	_____
Educational:	What courses to take in high school; what curriculum to pursue.	_____
College:	Whether to prepare for college; what college to enter; what field to major in.	_____
Academic:	How to motivate student to do better classroom work.	_____
Discipline:	How to improve student's relationship with teachers and peers.	_____

FOR COUNSELORS ONLY

14. Of the students referred to you last year, approximately how many were referred in each of the following areas? (If a student was referred to you for several reasons, consider only the most important category.)

Vocational:	What field to enter following high school graduation.	_____
Educational:	What courses to take in high school; what curriculum to pursue.	_____
College:	Whether to prepare for college; what college to enter; what field to major in.	_____
Academic:	How to motivate student to do better classroom work.	_____
Discipline:	How to improve student's relationship with teachers and peers.	_____

Please do not write in this margin

15. In talking with other teachers about students, do you discuss the results of standardized tests with them?

Frequently ___ 3   Rarely ___ 1
Sometimes ___ 2   Never ___ 0

54

16. If you had to make an important decision about a student--for example, advising him to enter or not to enter the college preparatory curriculum--how sure would you be of the correctness of your advice to him in each of the following cases?

a) You have never had the student in your class, but you have looked up his record and have found his intelligence and achievement test scores.

56 ☐

Very unsure about my advice ___0
Rather unsure ___1
Fairly sure ___2
Almost completely sure ___3

b) You have had the student in your class for one full year, but the student has not been given any intelligence or achievement tests.

57 ☐

Very unsure about my advice ___0
Rather unsure ___1
Fairly sure ___2
Almost completely sure ___3

c) You have had the student in your class for one full year, and you also know his intelligence and achievement test scores.

58 ☐

Very unsure about my advice ___0
Rather unsure ___1
Fairly sure ___2
Almost completely sure ___3

SECTION II

Student Problems

Below are four problems of a type familiar to most teachers. Under each is a list of six kinds of information a teacher might want to obtain about the student if the teacher wished to help him with his problem. For each problem please place a "1" after the kind of information you would most want to have about such a student. Then place a "2" after the kind of information you would next most want to have, and "3" after the third kind of information you would like to have. Please do this for each of the four problems.

Problem 1

Please do not write in this margin

At the beginning of the school year the principal asks you whether, in your judgment, Marian Sanders should be placed in the eleventh grade accelerated science class, or in the regular science class taken by the majority of students. What three kinds of information (in order) would you most like to have about this student?

Achievement in school subjects ____
Family and home life ____
Intelligence ____
Fears and worries ____
Interests and ambitions ____
Personality and character ____

59 ☐
60 ☐
61 ☐

Problem 2

George Merwin is a transfer student new to the school this year. He was placed in the eleventh grade--as indicated by his transfer record--yet he is doing failing work in your class, and other teachers have told you that he is failing in theirs also. What three kinds of information would you most like to have about this student?

Achievement in school subjects ____
Family and home life ____
Intelligence ____
Fears and worries ____
Interests and ambitions ____
Personality and character ____

62 ☐
63 ☐
64 ☐

Please do not write in this margin

Problem 3

Kay Johnson is enrolled in the college preparatory curriculum but is doing below average and failing work in mathematics and science. Her parents come to school at frequent intervals to talk to the teachers of these subjects, but Kay's work shows no improvement. Kay is active in every kind of school dramatics and has recently signed up to try out for the lead in the high school play. When reminded that she was doing failing work in some of her classes she said she didn't care as long as she passed. What three kinds of information would you most like to have about this student?

Achievement in school subjects ____
Family and home life ____
Intelligence ____
Fears and worries ____
Interests and ambitions ____
Personality and character ____

65 ☐
66 ☐
67 ☐

Problem 4

Andy Wilson causes trouble for every teacher who has him. His classroom behavior is disruptive. He is constantly doing small things like shooting paper-wads, blowing bubbles with his gum and allowing them to pop noisily, deliberately dropping his books on the floor, deliberately tripping himself when he goes to the pencil sharpener, etc. What three kinds of information would you most like to have about this student?

Achievement in school subjects ____
Family and home life ____
Intelligence ____
Fears and worries ____
Interests and ambitions ____
Personality and character ____

68 ☐
69 ☐
70 ☐

73 ☐
74 ☐

SECTION III

The Counseling Role

Beginning on the next page, we would like to find out about the present duties and responsibilities of

____

who is a counselor in your school. The next few pages list things which a counselor might be expected to do. Obviously, no single counselor is expected to do all of these things, and no two schools expect exactly the same things of a counselor. What we wish to learn is what expectations exist in your school in regard to this person's work.

As you read each statement, please ask yourself two questions:

1. Expectation: Is this a duty or responsibility which is expected of this person as a regular part of his job?

   Circle Yes, No, or Uncertain

2. Appropriateness: Is this something which should be expected of an individual in the job held by the above-named person? Is it a good idea to expect this as part of his job?

   Circle Yes,
   No,
   Unc (I am uncertain whether it is a good idea to expect this as part of his job).

Please circle one answer for each item.

	Duty or Responsibility	Expectation	Appropriateness	Please do not write in this margin
1.	Compile and arrange a file of selected information about students which is freely accessible to all teachers.	Yes No Unc	Yes No Unc	11
2.	Make a study of test and other data and draw up a general report for the principal regarding the student body at large.	Yes No Unc	Yes No Unc	12
3.	Invite teachers to group meetings to learn more about the interpretation of tests.	Yes No Unc	Yes No Unc	14
4.	Notify all students that certain test data have been received and encourage them to come in for conference regarding them.	Yes No Unc	Yes No Unc	15
5.	Act as a first level of referral for disciplinary and truancy problems.	Yes No Unc	Yes No Unc	16
6.	Advise on grouping students into ability levels and on routing them into various courses of study. (College preparatory, vocational, etc.)	Yes No Unc	Yes No Unc	17
7.	Establish regular conferences with individual teachers to discuss actual student cases.	Yes No Unc	Yes No Unc	18
8.	Conduct a study of student needs and use the results to plan the conduct of counseling services.	Yes No Unc	Yes No Unc	20
9.	Explain to parents (when they ask) the general meaning of certain of their child's test results and confer with those who come in with problems concerning their children.	Yes No Unc	Yes No Unc	24
10.	Conduct small faculty "case conferences" meetings on particular students in which test and other data are brought into proper perspective.	Yes No Unc	Yes No Unc	25
11.	Be responsible for such things as re-admitting students after absences, transferring students to other schools, etc.	Yes No Unc	Yes No Unc	28
12.	Conduct group meetings with students to discuss general questions of curriculum and course selection, and how test scores can help answer those questions.	Yes No Unc	Yes No Unc	29

6,

Duty or Responsibility	Expectation	Appropriateness	Please do not write in this margin
13. Teach at least one regular subject-matter class. (e.g., math, English, etc.)	Yes No Unc	Yes No Unc	31
14. Assist staff members in deciding which students should be enrolled in certain courses (e.g. algebra vs general math, chemistry vs general science, etc.)	Yes No Unc	Yes No Unc	33
15. Conduct large group meetings with parents (for example, at PTA) to explain and interpret test scores in general terms.	Yes No Unc	Yes No Unc	34
16. Maintain the cumulative student record files.	Yes No Unc	Yes No Unc	37
17. Act as a first level of referral for failing students.	Yes No Unc	Yes No Unc	39
18. Set up a schedule of required conferences with all students regarding their test results.	Yes No Unc	Yes No Unc	40
19. Conduct special classes in "careers", "group guidance", "marriage", etc.	Yes No Unc	Yes No Unc	41
20. Conduct meetings scheduled by authority of the principal in which teachers can learn more about the techniques, purposes, and values of counseling.	Yes No Unc	Yes No Unc	42
21. Assist teachers to build their own files for the students in their classes (or in their homerooms).	Yes No Unc	Yes No Unc	43
22. Send written notice to all staff members that test data have been received and are available.	Yes No Unc	Yes No Unc	48
23. Have an extra-curricular club.	Yes No Unc	Yes No Unc	51
24. Conduct meetings scheduled by authority of the principal in which teachers can learn more about the interpretation of tests.	Yes No Unc	Yes No Unc	52

Duty or Responsibility	Expectation	Appropriateness	Please do not write in this margin
25. Confer with teachers regarding general problems of motivation, discipline, etc.	Yes No Unc	Yes No Unc	54
26. Conduct general faculty planning meetings to discuss staff needs with regard to the kinds of tests that would be most useful.	Yes No Unc	Yes No Unc	55
27. Make a study of test data and select particular parents to be called in for conference.	Yes No Unc	Yes No Unc	56
28. Arrange for group tests to be scored by agencies outside the school.	Yes No Unc	Yes No Unc	57
29. Conduct small group faculty meetings to discuss the interpretation and use of tests to help solve problems specific to that group (e.g. science department, language department, etc.)	Yes No Unc	Yes No Unc	58
30. Counsel students regarding choice of high school courses, high school curricula, and possible vocations.	Yes No Unc	Yes No Unc	60
31. Invite teachers to group meetings to learn more about the aims, techniques, and values of counseling.	Yes No Unc	Yes No Unc	61
32. Conduct a general faculty briefing meeting after test data are received and discuss the results and possible uses in general terms.	Yes No Unc	Yes No Unc	63
33. Make a study of test data and select particular students to be called in for conference.	Yes No Unc	Yes No Unc	65
34. Notify all parents that certain test results have been received and encourage them to come in for conferences.	Yes No Unc	Yes No Unc	67
35. Hold small group faculty meetings to discuss the particular needs of various departments (such as Science, Industrial Arts, Language, etc.) in regard to the kinds of tests that would be most useful.	Yes No Unc	Yes No Unc	71
36. Meet with students as a group and discuss their test results in general terms.	Yes No Unc	Yes No Unc	76

Duty or Responsibility	Expectation	Appropriateness	Please do not write in this margin
37. Confer with individual teachers regarding the kinds of tests they might need in their own work.	Yes No Unc	Yes No Unc	78
38. Counsel students regarding family and other types of emotional problems.	Yes No Unc	Yes No Unc	79
39. Chaperone school dances, athletic events, etc.	Yes No Unc	Yes No Unc	80

Comments

Please use this space for any further comments you may have, either concerning the answers you have given, or about the questionnaire itself.

COMMUNICATION WITH OTHER FACULTY MEMBERS

This questionnaire is similar to one you answered a year ago. However, you will find it to be less than half as long.

There are two main parts to this leaflet:

Part A asks you how often you talk with other faculty members, on any topic whatsoever.

Part B asks you what portion of your conversation with others is devoted to topics of guidance, counseling, or testing.

Instructions for Part A are on the back of this leaf, and those for Part B are on the back of the pink leaf.

There is a short third part which you will find explained at the end of Part B.

Please write your name here:

____

utr-si-fall 1960 network
Bureau of Educational Research, Univ. of Ill.

PART A

HOW OFTEN DO YOU TALK WITH OTHER FACULTY MEMBERS?

For each person, think of your typical contacts with him. We are interested in all conversation on any topic whatsoever, school or non-school.

Estimate the average or typical frequency with which you have conversation with the person, and make an "X" in the column which comes closest to your estimate.

HOWEVER

If you converse with the person
  a) less than once a month, or
  b) only at formal groupings such as faculty meetings, or
  c) only to speak a casual "Good morning" in the corridor

THEN

draw a line through that person's name, thereby removing him from your list for filling out Part B of the questionnaire.

PART A

Almost every day	Once a week or more	At least once a month
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
___	___	___
3	2	1

PART B

WHAT PORTION OF YOUR CONVERSATION WITH THIS PERSON IS GIVEN TO GUIDANCE, COUNSELING, OR TESTING?

Some people have more occasion to talk about these topics than others, and certainly you yourself are more likely (or less likely) to bring up these topics with some of your colleagues than with others.

Regardless of whether you talk to a person a lot or a little, about what portion of your conversation with him has to do with guidance, counseling, or testing?

a) All conversation which involves learning about students through talks with students, through tests, through school records, through talks with parents, etc.

b) All conversation about guiding the student through the school curricula, into extra-curricular and non-school activities, into occupations, into higher education, etc.

c) All conversation about personal problems of students or their problems with school life.

FOR EACH PERSON NOT CROSSED OFF YOUR LIST, estimate the portion of your conversation with him devoted to the above topics, and make an "X" in the appropriate column.

PART B

Almost all	More than half	About half	Less than half	Almost none		397 Card 33-36-93 Col.
___	___	___	___	___	Auger, Keith	11
___	___	___	___	___	Bass, Thomas	12
___	___	___	___	___	Becker, Helene	13
___	___	___	___	___	Bell, Ester	14
___	___	___	___	___	Crandall, Richard	15
___	___	___	___	___	Cross, Wilma	16
___	___	___	___	___	Cruse, Jesse	17
___	___	___	___	___	Derby, Roger	18
___	___	___	___	___	Glass, John P.	19
___	___	___	___	___	Goodmon, Jean	20
___	___	___	___	___	Higgins, Judy	21
___	___	___	___	___	Irish, Sharon J.	22
___	___	___	___	___	Kenworthy, M. G.	23
___	___	___	___	___	Lloyd, Mary Ann	24
___	___	___	___	___	Logan, Jack E.	25
___	___	___	___	___	Martin, Gerald	26
___	___	___	___	___	Massey, Jane A.	27
___	___	___	___	___	Mathis, Russel L.	28
___	___	___	___	___	Nunnally, Marguerite	29
___	___	___	___	___	O'Brien, Kay	30
___	___	___	___	___	Oehmke, Charles	31
___	___	___	___	___	Patton, Earl D.	32
___	___	___	___	___	Rasmussen, Florence	33
___	___	___	___	___	Reldeen, Allan M.	34
___	___	___	___	___	Saathoff, Jacob J.	35
___	___	___	___	___	Schultz, Joseph	36
4	3	2	1	0		

PART A

HOW OFTEN DO YOU TALK WITH OTHER FACULTY MEMBERS?

For each person, think of your typical contacts with him. We are interested in all conversation on any topic whatsoever, school or non-school.

Estimate the average or typical frequency with which you have conversation with the person, and make an "X" in the column which comes closest to your estimate.

HOWEVER

If you converse with the person
  a) less than once a month, or
  b) only at formal groupings such as faculty meetings, or
  c) only to speak a casual "Good morning" in the corridor

THEN

draw a line through that person's name, thereby removing him from your list for filling out Part B of the questionnaire.

PART A

Almost every day	Once a week or more	At least once a month
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____
____ 3	____ 2	____ 1

PART B

WHAT PORTION OF YOUR CONVERSATION WITH THIS PERSON IS GIVEN TO GUIDANCE, COUNSELING, OR TESTING?

Some people have more occasion to talk about these topics than others, and certainly you yourself are more likely (or less likely) to bring up these topics with some of your colleagues than with others.

Regardless of whether you talk to a person a lot or a little, about what portion of your conversation with him has to do with guidance, counseling, or testing?

a) All conversation which involves learning about students through talks with students, through tests, through school records, through talks with parents, etc.

b) All conversation about guiding the student through the school curricula, into extra-curricular and non-school activities, into occupations, into higher education, etc.

c) All conversation about personal problems of students or their problems with school life.

FOR EACH PERSON NOT CROSSED OFF YOUR LIST, estimate the portion of your conversation with him devoted to the above topics, and make an "X" in the appropriate column.

PART B

Almost all	More than half	About half	Less than half	Almost none		397 Card 33-36-93 Col.
___	___	___	___	___	Somers, Lee H.	37
___	___	___	___	___	Stevenson, W. L.	38
___	___	___	___	___	Taylor, Corene	39
___	___	___	___	___	Taylor, Douglas	40
___	___	___	___	___	Watson, Agnes	41
___	___	___	___	___	Wood, Louis	42
___	___	___	___	___	Wick, Samuel	43
___ 4	___ 3	___ 2	___ 1	___ 0	Weipert, Alyne	44

NOW ONE THING MORE--

PART C

WHICH PERSONS POSSESS SPECIAL COMPETENCE IN JUDGING MATTERS OF GUIDANCE, COUNSELING, OR TESTING?

Every faculty name in this booklet is followed by a number. Please locate the names of persons (if any) whose judgments about questions concerning guidance, counseling, or testing you hold in especially high regard and circle the numbers following each such name--even though you may have drawn a line through that name.

REMINDER:

Please check through to be sure you have not missed either a white page or a pink page.

APPENDIX G

Substantive Learning Checklist

SUBSTANTIVE LEARNING CHECKLIST

Here is a list of many of the things covered during the Institute. Would you please check the degree to which you have found these things of help in your work this year?

Learning	Degree of Help
1) Understanding your own emotional needs as a counselor	Great Some Little
2) Developing local norms	Great Some Little
3) Interpreting test statistics	Great Some Little
4) Sources of information about tests	Great Some Little
5) Usefulness of specific, commonly used tests	Great Some Little
6) Techniques of interpreting test results to students	Great Some Little
7) Techniques of interpreting test results to parents	Great Some Little
8) Diagnostic uses of tests in counseling	Great Some Little
9) Types and uses of non-test data in counseling	Great Some Little
10) Specific research on test development use	Great Some Little
11) Techniques for influencing other faculty members regarding tests and their uses	Great Some Little
12) Sources of research on tests	Great Some Little

APPENDIX H

Card Sort Test: SIP Form

CUMULATIVE RECORD CARD

ANDERSON, JOHN

Age 17

Home and Family Background

Father's occupation: Truck Driver Father's Income: 4200
Mother's occupation: Waitress Mother's Income: 1200
No. of siblings: Brothers: 6 Sisters: 4 Sibling Position: Eldest
Comments: Family very poor. John works after school and on weekends to help ends meet.

Intelligence and Achievement

Intelligence Tests	Age	I.Q.	Achievement Tests	Age	Percentile Rank
1. CTMM	11	126	1. Reading	14	82
2. OTIS	16	128	2. Science	14	58
3.			3. Social Studies	14	60
4.			4.		
5.			5.		

Cumulative Grade Average	
1. Seventh Grade	B-
2. Eighth "	B
3. Ninth "	C+
4. Tenth "	B
5. Eleventh "	

Comments: A very conscientious boy. Quiet, attentive, very pleasant in class. Usually has work in on time, but not always.

Interests and Future Plans

Kuder Preference	Percentile Rank		Percentile Rank
1. Mechanical		6. Literary	
2. Computational		7. Musical	
3. Scientific		8. Social Service	
4. Persuasive		9. Clerical	
5. Artistic			

Future Plans: Plans to enter some kind of business. Has expressed a desire to own and operate his own hardware store.

Extra-Curricular Activities

Club Membership	Offices Held
1. None	
2.	
3.	
4.	
5.	

Personal-Social Adjustment

Comments: A quiet and well-mannered boy. Seems to get on well with classmates, but does not belong to any special group.

BELLOWS, LEON

CUMULATIVE RECORD CARD

Age 18

Home and Family Background

Father's occupation: Civil Engineer
Father's Income: 9500
Mother's occupation: Deceased
Mother's Income:
No. of siblings: Brothers 3 Sisters 0 Sibling Position 4
Comments: All three brothers in engineering college. Very close-knit family. Home maintained by an aunt.

Intelligence and Achievement

Intelligence Tests	Age	I.Q.
1. CTMM	10	104
2. Kuhlman	14	107
3.		
4.		
5.		

Achievement Tests	Age	Percentile Rank
1. Reading	14	41
2. Science	14	38
3. Math	14	19
4. Social Studies	14	40
5.		

Cumulative Grade Average	
1. Seventh Grade	C+
2. Eighth "	C+
3. Ninth "	B-
4. Tenth "	B-
5. Eleventh "	

Comments: Conscientious, industrious, very hard working.

Interests and Future Plans

Kuder Preference	Percentile
1. Mechanical	92
2. Computational	68
3. Scientific	73
4. Persuasive	14
5. Artistic	22

	Percentile Rank
6. Literary	35
7. Musical	18
8. Social Service	40
9. Clerical	38

Future Plans: Engineering college is a foregone conclusion with Leon. Refuses to even consider any other field.

Extra-Curricular Activities

Club Membership
1. Science
2. Tennis
3. Spanish
4.
5.

Offices Held
Vice-president

Personal-Social Activities

Comments: Well-liked by teachers and classmates. Very earnest and sincere about his school work.

BRIM, BENJAMIN CUMULATIVE RECORD CARD 3

Age 15

Home and Family Background

Father's occupation: Garage mechanic Father's Income: 5800
Mother's occupation: Housewife Mother's Income:
No. of siblings: Brothers 2 Sisters 0 Sibling Position 2
Comments: Average home

Intelligence and Achievement

Intelligence Tests	Age	I.Q.	Achievement Tests	Age	Percentile Rank
1. CTMM	10	128	1. Reading	14	78
2. OTIS	12	134	2. Science	14	81
3. Kuhlman	14	138	3. Math	14	76
4.			4. Social Studies	14	21
5.			5.		

Cumulative Grade Average	
1. Seventh Grade	C
2. Eighth "	C-
3. Ninth "	D
4. Tenth "	C-
5. Eleventh "	

Comments: This boy is lazy. Inattentive in class. Dislikes school and has had serious conflicts with two teachers.

Interests and Future Plans

Kuder Preference	Percentile Rank		Percentile Rank
1. Mechanical		6. Literary	
2. Computational		7. Musical	
3. Scientific		8. Social Service	
4. Persuasive		9. Clerical	
5. Artistic			

Future Plans: Plans to quit school and get a job as soon as possible. Family insists that he stay and graduate.

Extra-Curricular Activities

Club Membership	Offices Held
1.	
2. NONE	
3.	
4.	
5.	

Personal-Social Adjustment

Comments: Runs with a gang of "hot rodders." A difficult boy to know and understand. Has been disciplined by the principal several times.

BUSAR, LEONA CUMULATIVE RECORD CARD

Age 16

Home and Family Background

Father's occupation: Broker Father's Income: 8000
Mother's occupation: Housewife Mother's Income:
No. of siblings: Brothers 0 Sisters 1 Sibling Position 2
Comments:

Intelligence and Achievement

Intelligence Tests	Age	I.Q.	Achievement Tests	Age	Percentile Rank
1. CTMM	11	125	1. Reading	14	91
2.			2. Science	14	58
3.			3. Math	14	71
4.			4. Social Studies	14	86
5.			5.		

Cumulative Grade Average	
1. Seventh Grade	B+
2. Eighth "	A
3. Ninth "	B+
4. Tenth "	B+
5. Eleventh "	

Comments: Very hard working student. Seems to enjoy school and her class work very much.

Interests and Future Plans

Kuder Preference	Percentile Rank		Percentile Rank
1. Mechanical	13	6. Literary	69
2. Computational	20	7. Musical	91
3. Scientific	31	8. Social Service	78
4. Persuasive	78	9. Clerical	10
5. Artistic	59		

Future Plans: Wants a home and family. Is majoring in home economics. Enjoys everything about it except the required science courses.

Extra-Curricular Activities

Club Membership	Offices Held
1. Glee Club	
2. Band	
3. Orchestra	
4.	
5.	

Personal-Social Adjustment

Comments: A well-liked girl...Good peer relationships. Gets on well with adults as well as peers.

GALDWELL, JANICE

CUMULATIVE RECORD CARD

5

Age 17

Home and Family Background

Father's occupation: Contractor — Father's Income: 8500
Mother's occupation: Deceased — Mother's Income:
No. of siblings: Brothers 2 Sisters 1 Sibling Position 3
Comments:

Intelligence and Achievement

Intelligence Tests	Age	I.Q.	Achievement Tests	Age	Percentile Rank
1. Otis	11	107	1. Reading	14	32
2.			2. Science	14	21
3.			3. Math	14	17
4.			4. Social Studies	14	37
5.			5.		

Cumulative Grade Average	
1. Seventh Grade	C-
2. Eighth "	C
3. Ninth "	C+
4. Tenth "	B
5. Eleventh "	

Comments: One of the most conscientious students in school. Work is always letter perfect, despite lack of quality.

Interests and Future Plans

Kuder Preference	Percentile Rank		Percentile Rank
1. Mechanical		6. Literary	
2. Computational		7. Musical	
3. Scientific		8. Social Service	
4. Persuasive		9. Clerical	
5. Artistic			

Future Plans: Plans to attend college. Has stated that she "will die" if she doesn't get admitted.

Extra-Curricular Activities

Club Membership	Offices Held
1. Girl's Athletic Assn.	
2.	
3.	
4.	
5.	

Personal-Social Adjustment

Comments: Well-accepted by teachers and peers.

DUGGIN, ARCHIBALD CUMULATIVE RECORD CARD 6

Age 17

Home and Family Background

Father's occupation: **Assoc. Prof. of Physics** Father's Income: 9200
Mother's occupation: **Housewife** Mother's Income:
No. of siblings: Brothers 1 Sisters 0 Sibling Position **Eldest**
Comments: **Very close permissive family. Greatly admires father and wants to be like him in every respect.**

Intelligence and Achievement

Intelligence Tests	Age	I.Q.
1. CTMM	10	107
2. Otis	12	106
3. Kuhlman	15	108
4.		
5.		

Achievement Tests	Age	Percentile Rank
1. Reading	14	41
2. Science	14	38
3. Math	14	37
4. Social Studies	14	40
5.		

Cumulative Grade Average	
1. Seventh Grade	C-
2. Eighth "	C
3. Ninth "	C-
4. Tenth "	C-
5. Eleventh "	

Comments: **Very hard and conscientious worker. Always has assignments completed on time. Work is always very neatly done.**

Interests and Future Plans

Kuder Preference	Percentile Rank
1. Mechanical	73
2. Computational	42
3. Scientific	39
4. Persuasive	24
5. Artistic	65

	Percentile Rank
6. Literary	78
7. Musical	40
8. Social Service	32
9. Clerical	38

Future Plans: **Plans for future indefinite.**

Extra-Curricular Activities

Club Membership	Offices Held
1. A Cappella	
2. Glee Club	
3. Spanish Club	Treasurer
4.	
5.	

Personal-Social Adjustment

Comments: **Very likable boy. Gets along well with peers but no close friends.**

ENDING, LIONEL

CUMULATIVE RECORD CARD

Age 16

Home and Family Background

Father's occupation: Farmer — Father's Income: 6500
Mother's occupation: Housewife — Mother's Income:
No. of siblings: Brothers 2 Sisters 1 — Sibling Position 1
Comments:

Intelligence and Achievement

Intelligence Tests	Age	I.Q.
1. CTMM	12	113
2.		
3.		
4.		
5.		

Achievement Tests	Age	Percentile Rank
1. Reading	14	36
2. Science	14	31
3. Math	14	29
4. Social Studies	14	42
5.		

Cumulative Grade Average	
1. Seventh Grade	C-
2. Eighth "	C-
3. Ninth "	C
4. Tenth "	C-
5. Eleventh "	

Comments: Average student. Could apply himself more.

Interests and Future Plans

Kuder Preference	Percentile Rank		Percentile Rank
1. Mechanical	81	6. Literary	12
2. Computational	74	7. Musical	18
3. Scientific	92	8. Social Service	24
4. Persuasive	38	9. Clerical	16
5. Artistic	10		

Future Plans: Aeronautical engineer.

Extra-Curricular Activities

Club Membership	Offices Held
1.	
2.	
3.	
4.	
5.	

Personal-Social Adjustment

Comments: Average

GREER, CHARLES

CUMULATIVE RECORD CARD

Age 16

Home and Family Background

Father's occupation: Retail Merchant
Father's Income: 8000
Mother's occupation: Housewife
Mother's Income:
No. of siblings: Brothers 0 Sisters 2
Sibling Position 1
Comments:

Intelligence and Achievement

Intelligence Tests	Age	I.Q.
1. CTMM	10	121
2. Kuhlman	14	123
3.		
4.		
5.		

Achievement Tests	Age	Percentile Rank
1. Reading	14	84
2. Science	14	78
3. Math	14	81
4. Social Studies	14	79
5.		

Cumulative Grade Average	
1. Seventh Grade	B+
2. Eighth "	A
3. Ninth "	A
4. Tenth "	A
5. Eleventh "	

Comments:

Interests and Future Plans

Kuder Preference	Percentile Rank
1. Mechanical	68
2. Computational	71
3. Scientific	86
4. Persuasive	31
5. Artistic	22
6. Literary	27
7. Musical	10
8. Social Service	14
9. Clerical	18

Future Plans: High school science teacher

Extra-Curricular Activities

Club Membership	Offices Held
1. Science	President
2. Debating	
3. Tennis	Vice President
4. FTA	
5.	

Personal-Social Adjustment

Comments: Excellent peer relationship. Good leader.

HALL, ESTER

CUMULATIVE RECORD CARD

Age 17

Home and Family Background

Father's occupation: R. R. Engineer
Father's Income: 7000
Mother's occupation: Housewife
Mother's Income:
No. of siblings: Brothers 2 Sisters 1
Sibling Position 3
Comments:

Intelligence and Achievement

Intelligence Tests	Age	I.Q.
1. CTMM	10	108
2. Kuhlman	14	105
3.		
4.		
5.		

Achievement Tests	Age	Percentile Rank
1. Reading	14	39
2. Science	14	28
3. Math	14	31
4. Social Studies	14	48
5.		

Cumulative Grade Average		
1. Seventh Grade		C+
2. Eighth	"	C
3. Ninth	"	C
4. Tenth	"	C+
5. Eleventh	"	

Comments: Average student although very neat in her work

Interests and Future Plans

Kuder Preference	Percentile Rank
1. Mechanical	51
2. Computational	37
3. Scientific	49
4. Persuasive	58
5. Artistic	53
6. Literary	47
7. Musical	31
8. Social Service	37
9. Clerical	56

Future Plans:

Extra-Curricular Activities

Club Membership	Offices Held
1. Girl's Athletic Assn.	
2.	
3.	
4.	
5.	

Personal-Social Adjustment

Comments: Friendly, likable girl

INSKEEP, GEORGE

CUMULATIVE RECORD CARD

10

Age 16

Home and Family Background

Father's occupation: Mail Carrier Father's Income: 6500
Mother's occupation: Housewife Mother's Income:
No. of siblings: Brothers 1 Sisters 0 Sibling Position 1
Comments:

Intelligence and Achievement

Intelligence Tests	Age	I.Q.	Achievement Tests	Age	Percentile Rank
1. Otis	12	118	1. Reading	14	75
2. Kuhlman	14	117	2. Science	14	69
3.			3. Math	14	78
4.			4. Social Studies	14	69
5.			5.		

Cumulative Grade Average	
1. Seventh Grade	B+
2. Eighth "	B+
3. Ninth "	A
4. Tenth "	A
5. Eleventh "	

Comments:

Interests and Future Plans

Kuder Preference	Percentile Rank		Percentile Rank
1. Mechanical	53	6. Literary	22
2. Computational	61	7. Musical	14
3. Scientific	78	8. Social Service	41
4. Persuasive	31	9. Clerical	18
5. Artistic	19		

Future Plans: Aviator

Extra-Curricular Activities

Club Membership	Offices Held
1. Science	
2. Football	
3. Basketball	
4. Baseball	
5. Track	

Personal-Social Adjustment

Comments: Good personality. Very popular with peers. Has many friends.

JENSON, HORACE

CUMULATIVE RECORD CARD

Age 16

Home and Family Background

Father's occupation:	Physician	Father's Income:	18,000
Mother's occupation:	Housewife	Mother's Income:	

No. of siblings: Brothers 0 Sisters 0 Sibling Position

Comments: This is a "doctor's family." The father, as well as his father is a doctor as well as the grandfather. Horace is expected to become a physician as a matter of course.

Intelligence and Achievement

Intelligence Tests	Age	I.Q.	Achievement Tests	Age	Percentile Rank
1. CTMM	11	119	1. Reading	14	49
2. OTIS	14	119	2. Science	14	52
3.			3. Math	14	41
4.			4. Social Studies	14	68
5.			5.		

Cumulative Grade Average	
1. Seventh Grade	B
2. Eighth "	B-
3. Ninth "	C+
4. Tenth "	B-
5. Eleventh "	

Comments: Average student. Could do better work if he applied himself. Does well in English and Social Studies, but very poorly in his science courses.

Interests and Future Plans

Kuder Preference	Percentile Rank		Percentile Rank
1. Mechanical	13	6. Literary	90
2. Computational	19	7. Musical	68
3. Scientific	21	8. Social Service	50
4. Persuasive	87	9. Clerical	11
5. Artistic	71		

Future Plans: Will enter pre-med curriculum upon graduation.

Extra-Curricular Activities

Club Membership	Offices Held
1. Band	
2. Orchestra	
3. Science	
4.	
5.	

Personal-Social Adjustment

Comments: Shy and withdrawn. Pleasant, but very hard to get to know.

JOHNSON, ANITA

CUMULATIVE RECORD CARD

12

Age 17

Home and Family Background

Father's occupation: Insurance Salesman Father's Income: 6800
Mother's occupation: Housewife Mother's Income:
No. of siblings: Brothers 1 Sisters 1 Sibling Position 3
Comments: Good home and family relationship.

Intelligence and Achievement

Intelligence Tests	Age	I.Q.
1. CTMM	10	104
2. OTIS	13	107
3.		
4.		
5.		

Achievement Tests	Age	Percentile Rank
1. Reading	14	42
2. Science	14	31
3. Math	14	29
4. Social Studies	—	
5.		

Cumulative Grade Average	
1. Seventh Grade	B-
2. Eighth "	B+
3. Ninth "	B
4. Tenth "	B-
5. Eleventh "	

Comments: Exceptionally hard-working student. Spends hours on her assignments and always gets work in on time. Eager and attentive in class. Loves her school work.

Interests and Future Plans

Kuder Preference	Percentile Rank
1. Mechanical	
2. Computational	
3. Scientific	
4. Persuasive	
5. Artistic	
6. Literary	
7. Musical	
8. Social Service	
9. Clerical	

Future Plans: Plans to attend college and become an elementary school teacher.

Extra-Curricular Activities

Club Membership	Offices Held
1. Girl's Athletic Assn.	
2. FTA	
3. Spanish	Secretary
4.	
5.	

Personal-Social Adjustment

Comments: Very friendly and likable girl. Pleasant, well-adjusted, has many friends.

LASSER, HAROLD CUMULATIVE RECORD CARD

Age 17

Home and Family Background

Father's occupation: Grocery Store Mgr. Father's Income: 6000
Mother's occupation: Housewife Mother's Income:
No. of siblings: Brothers 2 Sisters 1 Sibling Position 2nd
Comments: Good, middle-class home. Has a work-shop of his own in basement.

Intelligence and Achievement

Intelligence Tests	Age	I.Q.
1. OTIS	13	109
2.		
3.		
4.		
5.		

Achievement Tests	Age	Percentile Rank
1. Reading	14	49
2. Science	14	47
3. Social Studies	14	51
4.		
5.		

Cumulative Grade Average	
1. Seventh Grade	C+
2. Eighth "	C
3. Ninth "	C-
4. Tenth "	C-
5. Eleventh "	

Comments: Does not work to capacity. Lazy and careless. Rarely comes to class prepared. Could do very good work if he applied himself.

Interests and Future Plans

Kuder Preference	Percentile Rank		Percentile Rank
1. Mechanical	92	6. Literary	33
2. Computational	80	7. Musical	20
3. Scientific	94	8. Social Service	14
4. Persuasive	21	9. Clerical	31
5. Artistic	19		

Future Plans: Wants to become an engineer. Greatly enjoys himself when he is building "gadgets" in his workshop at home.

Extra-Curricular Activities

Club Membership	Offices Held
1. Science	
2.	
3.	
4.	
5.	

Personal-Social Adjustment

Comments: Very shy. Keeps to himself and has few friends.

RUSSELL, EDWARD **CUMULATIVE RECORD CARD**

Age 17

Home and Family Background

Father's occupation: Aircraft designer Father's Income: 9800
Mother's occupation: Housewife Mother's Income: ______
No. of siblings: Brothers 0 Sisters 0 Sibling Position ______
Comments: Very happy home. Father owns own airplane and takes family on frequent weekend trips. Has taught Edward to fly and lets him pilot plane under supervision.

Intelligence and Achievement

Intelligence Tests	Age	I.Q.
1. CTMM	10	103
2. Kuhlman	14	105
3.		
4.		
5.		

Achievement Tests	Age	Percentile Rank
1. Science	14	24
2. Math	14	19
3. Social Studies	14	31
4. Reading	14	34
5.		

Cumulative Grade Average	
1. Seventh Grade	C
2. Eighth "	C-
3. Ninth "	C-
4. Tenth "	C
5. Eleventh "	

Comments: Except for topics which can be related to aviation and aeronautics, school does not interest him.

Interests and Future Plans

Kuder Preference	Percentile Rank
1. Mechanical	90
2. Computational	84
3. Scientific	94
4. Persuasive	20
5. Artistic	51
6. Literary	19
7. Musical	17
8. Social Service	31
9. Clerical	29

Future Plans: Plans to enter college and become an aircraft designer like his father. Father and son plan to have own company in time.

Extra-Curricular Activities

Club Membership	Offices Held
1. Science	
2. Swimming	Vice-president
3. Spanish	
4. Basketball (Varsity)	
5.	

Personal-Social Adjustment

Comments: Extremely popular with classmates. More interested in sports than in his school work.

SANSONE, MARY LOU

CUMULATIVE RECORD CARD

Age 16

Home and Family Background

Father's occupation: Deceased
Father's Income: ______
Mother's occupation: Seamstress
Mother's Income: 3200
No. of siblings: Brothers 4 Sisters 3
Sibling Position Eldest
Comments: Works evenings as a carhop at a drive-in. Very close to mother. Spends all available time helping to keep up the home.

Intelligence and Achievement

Intelligence Tests	Age	I.Q.	Achievement Tests	Age	Percentile Rank
1. Kuhlman	10	112	1. Science	14	78
2. OTIS	12	111	2. Reading	14	89
3. CTMM	15	110	3. Social Studies	14	72
4.			4. Math	14	75
5.			5.		

Cumulative Grade Average	
1. Seventh Grade	A-
2. Eighth "	B
3. Ninth "	A-
4. Tenth "	A
5. Eleventh "	

Comments: Capable student, conscientious, interested, hard working, sometimes seems tired.

Interests and Future Plans

Kuder Preference	Percentile Rank		Percentile Rank
1. Mechanical		6. Literary	
2. Computational		7. Musical	
3. Scientific		8. Social Service	
4. Persuasive		9. Clerical	
5. Artistic			

Future Plans: Plans to become a secretary and hopes to put brothers and sisters through school.

Extra-Curricular Activities

Club Membership	Offices Held
1. None	
2.	
3.	
4.	
5.	

Personal-Social Adjustment

Comments: A quiet, industrious girl. Makes friends easily. Pleasant personality.

THOMPSON, RUTH

CUMULATIVE RECORD CARD

16

Age 15

Home and Family Background

Father's occupation: Musician

Mother's occupation: Piano Teacher

No. of siblings: Brothers 1 Sisters 0

Father's Income: 8000

Mother's Income: 4500

Sibling Position 1

Comments: A musical family. Brother is a fine clarinetist.

Intelligence and Achievement

Intelligence Tests	Age	I.Q.
1. CTMM	10	141
2. OTIS	14	130
3.		
4.		
5.		

Achievement Tests	Age	Percentile Rank
1. Reading	14	82
2. Science	14	71
3. Math	14	78
4. Social Studies	14	81
5.		

Cumulative Grade Average	
1. Seventh Grade	A
2. Eighth "	A
3. Ninth "	B
4. Tenth "	A
5. Eleventh "	

Comments: A good but not enthusiatic student. Cares only for music.

Interests and Future Plans

Kuder Preference	Percentile Rank
1. Mechanical	12
2. Computational	18
3. Scientific	10
4. Persuasive	49
5. Artistic	92

	Percentile Rank
6. Literary	89
7. Musical	96
8. Social Service	51
9. Clerical	10

Future Plans: Concert pianist

Extra-Curricular Activities

Club Membership
1. Band
2. Orchestra
3. Glee Club
4. A Cappella
5.

Offices Held

Personal-Social Adjustment

Comments: Reserved, withdrawn, does not make friends easily.

TRILISTON, JO ANN CUMULATIVE RECORD CARD

Age 16

Home and Family Background

Father's occupation: Plumber Father's Income: 7200
Mother's occupation: Housewife Mother's Income:
No. of siblings: Brothers 1 Sisters 0 Sibling Position *Eldest
Comments:

Intelligence and Achievement

Intelligence Tests	Age	I.Q.
1. Kuhlman	13	128
2.		
3.		
4.		
5.		

Achievement Tests	Age	Percentile Rank
1. Reading	14	87
2. Science	14	78
3. Math	14	74
4. Social Studies	14	81
5.		

Cumulative Grade Average	
1. Seventh Grade	C
2. Eighth "	B
3. Ninth "	D+
4. Tenth "	C-
5. Eleventh "	

Comments: All teachers have difficulty with this girl. She is rude, unpleasant, and highly critical in class. Loves to ask "unanswerable questions" to try to trap teachers. Work is very sloppy and seldom on time.

Interests and Future Plans

Kuder Preference	Percentile Rank
1. Mechanical	28
2. Computational	76
3. Scientific	81
4. Persuasive	10
5. Artistic	26
6. Literary	18
7. Musical	30
8. Social Service	41
9. Clerical	16

Future Plans: Plans to become an aeronautical engineer or a chemist.

Extra-Curricular Activities

Club Membership	Offices Held
1.	
2. None	
3.	
4.	
5.	

Personal-Social Adjustment

Comments: Poor relationships with peers and adults. Has one close girl friend.

UNDERWOOD, LILLIAN

CUMULATIVE RECORD CARD

Age 16

Home and Family Background

Father's occupation: R. R. Worker Father's Income: 3400
Mother's occupation: Housewife Mother's Income:
No. of siblings: Brothers 8 Sisters 3 Sibling Position 4
Comments: Very poor home conditions. Father drinks, frequent family fights. Entire family lives in a five room hovel near R.R.

Intelligence and Achievement

Intelligence Tests	Age	I.Q.	Achievement Tests	Age	Percentile Rank
1. CTMM	11	117	1. Reading	14	78
2. Otis	14	116	2. Science	14	81
3.			3. Math	14	50
4.			4. Social Studies	14	52
5.			5.		

Cumulative Grade Average

1.	Seventh Grade	B
2.	Eighth "	B-
3.	Ninth "	B-
4.	Tenth "	B
5.	Eleventh "	

Comments: A good student and hard worker but ofter gets work in late. Has impossible study conditions at home.

Interests and Future Plans

Kuder Preference	Percentile Rank		Percentile Rank
1. Mechanical	41	6. Literary	31
2. Computational	83	7. Musical	19
3. Scientific	94	8. Social Service	41
4. Persuasive	28	9. Clerical	16
5. Artistic	20		

Future Plans: Wants to become a research chemist, or a chemistry teacher. Says she does not care how long it will take her.

Extra-Curricular Activities

Club Membership	Offices Held
1. Science Club	
2.	
3.	
4.	
5.	

Personal-Social Adjustment

Comments: Rejected by classmates because of lack of personal cleanliness and because of home conditions.

WEST, SHELIA

CUMULATIVE RECORD CARD

19

Age 15

Home and Family Background

Father's occupation: Salesman Father's Income: 6200
Mother's occupation: Housewife Mother's Income:
No. of siblings: Brothers 1 Sisters 1 Sibling Position 1
Comments:

Intelligence and Achievement

Intelligence Tests	Age	I.Q.
1. CTMM	10	138
2. Otis	11	141
3. Kuhlman	14	139
4.		
5.		

Achievement Tests	Age	Percentile Rank
1. Reading	14	99
2. Science	14	51
3. Math	14	47
4. Social Studies	14	89
5.		

Cumulative Grade Average

1.	Seventh Grade	B
2.	Eighth "	B
3.	Ninth "	B
4.	Tenth "	B
5.	Eleventh "	

Comments: Will work at something only if she likes it. Could apply herself much more if she would.

Interests and Future Plans

Kuder Preference	Percentile Rank
1. Mechanical	14
2. Computational	22
3. Scientific	18
4. Persuasive	68
5. Artistic	70
6. Literary	84
7. Musical	54
8. Social Service	31
9. Clerical	10

Future Plans: Not definite. Wants to travel and have some sort of an "exciting job."

Extra-Curricular Activities

Club Membership	Offices Held
1. Girls Athletic Assn.	President
2. Swimming	President
3. Spanish	President
4. Cheerleader	
5.	Junior Class Vice President

Personal-Social Adjustment

Comments: Very popular. A leader.

WILSON, MAJORIE   **CUMULATIVE RECORD CARD**   20

Age 17

Home and Family Background

Father's occupation: Road Construction Supervisor   Father's Income: 6800
Mother's occupation: Housewife   Mother's Income:
No. of siblings: Brothers 1 Sisters 1   Sibling Position" 3
Comments:

Intelligence and Achievement

Intelligence Tests	Age	I.Q.
1. CTMM	10	103
2. Kuhlman	14	104
3.		
4.		
5.		

Achievement Tests	Age	Percentile Rank
1. Reading	14	36
2. Science	14	29
3. Math	14	27
4. Social Studies	14	41
5.		

Cumulative Grade Average	
1. Seventh Grade	C
2. Eighth "	C
3. Ninth "	C
4. Tenth "	C
5. Eleventh "	

Comments: Average student. Hard worker.

Interests and Future Plans

Kuder Preference	Percentile Rank
1. Mechanical	14
2. Computational	27
3. Scientific	31
4. Persuasive	62
5. Artistic	40
6. Literary	39
7. Musical	61
8. Social Service	58
9. Clerical	19

Future Plans: Marriage

Extra-Curricular Activities

Club Membership
1. Cheerleader
2.
3.
4.
5.

Offices Held

Personal-Social Adjustment

Comments: Extremely attractive girl, has many friends of both sexes.

APPENDIX I

Role Checklist Items on Which All Instructors Agreed and Role Checklist Items on Which Instructors Disagreed

Appendix I

Role Checklist Items on Which All Instructors Agreed

Item		Response
2.	Make a study of test and other data and draw up a general report for the principal regarding the student body at large.	Yes
3.	Invite teachers to group meetings to learn more about the interpretation of tests.	Yes
4.	Notify all students that certain test data have been received and encourage them to come in for conferences regarding them.	Yes
5.	Act as a first level of referral for disciplinary and truancy problems.	No
6.	Advise on grouping students into ability levels and on routing them into various courses of study. (College preparatory, vocational, etc.)	Yes
7.	Establish regular conferences with individual teachers to discuss actual student cases.	Yes
9.	Explain to parents (when they ask) the general meaning of certain of their child's test results and confer with those who come in with problems concerning their children.	Yes
10.	Conduct small faculty "case conferences" meetings on particular students in which test and other data are brought into proper perspective.	Yes
12.	Conduct group meetings with students to discuss general questions of curriculum and course selection, and how test scores can help answer those questions.	Yes
14.	Assist staff members in deciding which students should be enrolled in certain courses (e.g., algebra vs. general math, chemistry vs. general science, etc.)	Yes
15.	Conduct large group meetings with parents (for example, at PTA) to explain and interpret test scores in general terms.	Yes
18.	Set up a schedule of required conferences with all students regarding their test results.	No

Item		Response
21.	Assist teachers to build their own files for the students in their classes (or in their homerooms).	Yes
22.	Send written notice to all staff members that test data have been received and are available.	Yes.
25.	Confer with teachers regarding general problems of motivation, discipline, etc.	Yes
26.	Conduct general faculty planning meetings to discuss staff needs with regard to the kinds of tests that would be most useful.	Yes
29.	Conduct small group faculty meetings to discuss the interpretation and use of tests to help solve problems specific to that group (e.g., science department language department, etc.)	Yes
30.	Counsel students regarding choice of high school courses, high school curricula, and possible vocations.	Yes
31.	Invite teachers to group meetings to learn more about the aims, techniques, and values of counseling.	Yes
32.	Conduct a general faculty briefing meeting after test data are received and discuss the results and possible uses in general terms.	Yes
33.	Make a study of test data and select particular students to be called in for conference.	Yes
34.	Notify all parents that certain test results have been reveived and encourage them to come in for conferences.	Yes
35.	Hold small group faculty meetings to discuss the particular needs of various departments (such as Science, Industrial Arts, Language, etc.) in regard to the kinds of tests that would be most useful.	Yes
37.	Confer with individual teachers regarding the kinds of tests they might need in their own work.	Yes
38.	Counsel students regarding family and other types of emotional problems.	Yes

Role Checklist Items on Which Instructors Disagreed

Item

1. Compile and arrange a file of selected information about students which is freely accessible to all teachers.

8. Conduct a study of student needs and use the results to plan the conduct of counseling services.

11. Be responsible for such things as re-admitting students after absences, transferring students to other schools, etc.

13. Teach at least one regular subject-matter class. (e.g., math, English, etc.)

16. Maintain the cumulative student record files.

17. Act as a first level of referral for failing students.

19. Conduct special classes in "careers", "group guidance", "marriage", etc.

20. Conduct meetings scheduled by authority of the principal in which teachers can learn more about the techniques, purposes, and values of counseling.

23. Have an extra-curricular club.

24. Conduct meetings scheduled by authority of the principal in which teachers can learn more about the interpretation of tests.

27. Make a study of test data and select particular parents to be called in for conference.

28. Arrange for group tests to be scored by agencies outside the school.

36. Meet with students as a group and discuss their test results in general terms.

39. Chaperone school dances, athletic events, etc.

APPENDIX J

First Report to Participants

Summer Guidance Institute

Follow-Up Study

PRELIMINARY REPORT NO. 1

to participants

Spring 1960

Prepared by
Philip J. Runkel and Dora E. Damrin

Bureau of Educational Research
University of Illinois

utr-si

The research reported herein was performed pursuant to a contract with the United States Office of Education, Department of Health, Education, and Welfare.

J. Thomas Hastings, Study Director

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How This Report Is Organized

This report is written specifically for persons who participated in the initial phase of the Summer Guidance Institute Follow-Up Study conducted in the fall of 1959. Because last fall was a long time ago, and because this report is organized around the many question-answering tasks you performed for us at that time, we felt that it would be well to refresh your memory regarding the specific nature of these tasks.

One of our sessions with you was a group meeting at which you were given a list containing the names of all of the faculty members in your school, and one or more rather sizeable blank booklets. You were asked to go through the faculty list several times, and each time to check your answers to a series of questions about who on the faculty you talked with, how much you talked with them, and what you talked with them about. Some characteristics of certain responses to these questions are reported in Section III.

At another session we met with you individually and gave you a pack of cumulative student record cards for a fictitious class of eleventh graders. We asked you to study the data on these cards and to decide whether, in your judgment, the student should be placed in an accelerated class in science or kept in the regular science class. Our analysis of these data is reported in Section VI.

Immediately following this interview we gave you two quite formidable books and asked you to take them home with you and mail them to us when you had time to complete them. We were -- and still are-- impressed by your fine cooperation in filling these out. We fully recognized the burden of the task.

One of these books was a test of your knowledge about how to use and interpret test data. The distributions of scores are presented and discussed in Section VII.

The other book had several parts to it. One part asked you how you would go about gathering information about students who presented quite different problems. This part of the book is discussed in Section V. Another part asked you in great detail about the role of the counselor in your school, and asked for your judgment of how this role ought to be defined. Similarities and differences among schools on these questions are reported in Section I.

Still another part of the book asked you for your opinion on a number of issues of critical importance in present education. This you will find discussed in Section IV. Finally, we asked you questions about various practices regarding your school's testing program. A few findings about this are presented in Section II.

Here and there we have interjected our own views and interpretations. Some of you will disagree violently with our interpretive comments; some will feel that the statements merely confirm ideas which they have long known to be true; some will be alerted to ideas which they have not thought about previously. In any event, we anticipate that this report will evoke some lively discussion among faculty groups.

SECTION I

The Role of the School Counselor

One of the most important parts of the questionnaire was a section composed of duties and responsibilities often expected of school counselors. You were asked to check those duties which a counselor in your school is expected to perform as a regular part of his job, and then to evaluate these on the basis of whether -- in your own opinion -- the counselor ought to be expected to perform them.

Our purpose in asking you for these data were two-fold. First, to determine similarities and differences among our 28 schools in the way the counselor's job is defined. Second, to determine similarities and differences in teachers' perceptions of how the counselor's job ought to be defined. This section presents our findings in regard to these two purposes.

I. How do the majority of schools define the job of the counselor?

By far the majority of teachers in all twenty-eight schools indicate by their responses that the job or role of the counselor is to provide educational, personal, and vocational counseling for students and to consult with teachers and parents about student problems in these areas. Further, they view the counselor as a professional person, not as a general handyman who does clerical work for the principal (such as making out class schedules) or fill-in work for the teachers (such as general substitute teaching).

II. How do schools differ in the way they define the job of the counselor?

Some of the differences among schools involved duties which we might call "arbitrary assignments". By an arbitrary assignment we mean any duty which is a necessary part of the school's total operation, but which can be carried out about equally well by a counselor, a teacher, a principal, or an administrator. In some schools these duties are apparently assigned to the counselor, in others they are carried out by someone else; for example, planning the schedule of group testing times, administering the tests, seeing that the testing schedule is carried out, etc.

Of greater interest, however, are those differences which seem to reflect divergent philosophies regarding the counseling role. Two distinct philosophies emerged from the patterns of answers. The first might be termed the "Teacher-Counselor" philosophy; the second, the "Counselor-Specialist" philosophy. Those who adhere to the first philosophy apparently feel that the "good" counselor is one who involves himself with students in the same ways that other teachers do. For example, these respondents indicated that the counselor should teach at least one subject class, he should be responsible for an extracurricular club, he should take responsibility for the student-government organization, he should act as a chaperone at school dances, etc. Teachers with this point of view seem to be saying that to be effective the counselor should not remove himself to an office where he does nothing but test, counsel, and keep records, so to speak, but should remain close to the students and the academic life of the school.

Proponents of the Counselor-Specialist philosophy seem to regard the counselor as an individual whose specialized training fits him for what is essentially a non-teaching position. These teachers feel that the counselor ought not to perform those duties and responsibilities normally expected of every classroom teacher, but should devote himself wholly to the areas in which he alone has specialized training.

III. Where do teachers feel the counseling role needs to be expanded?

There was one group of items that a majority of teachers in many of the schools marked in the same way -- namely, the teachers said, "No, this is not expected of the counselor but I think it ought to be performed by him". We regarded this group as especially significant because so many of the items concerned improved dissemination of guidance information to the teachers themselves. Examples of these items are:

The counselor should -- but does not

1. Invite teachers to group meetings to learn more about the interpretation of tests.
2. Conduct meetings in which teachers can learn more about the techniques, purposes, and values of counseling.
3. Conduct general faculty planning meetings to discuss staff needs with regard to the kinds of tests that would be most useful.
4. Conduct small group faculty meetings to discuss the interpretation and use of tests to help solve problems specific to that group (e.g., science department, language department, etc.).
5. Conduct a general faculty briefing meeting after test data are received and discuss the results and possible uses in general terms.

From these and related items it would appear that, in many schools, teachers wish the counselor to work more closely with them and keep them better informed with regard to the masses of test data obtained and filed for students. Teachers are seemingly aware of the importance of these data in their daily work with students, but (to judge by the frequency with which the foregoing items were mentioned) many counselors are not aware of the desire existing in the faculty for more information and help of the kind which the counselor could provide. Could it be that counselors -- perhaps because of their training in educational and vocational counseling -- are focussing too much on tests as of value in making predictions about the future of groups of students, and failing to recognize the value of their data for the daily work of the teacher?

In summary, both the similarities and the differences to be found in these answers are important. On the one hand, a core definition of the counseling role existed in the 28 schools. On the other hand, there were clear differences in what was expected of counselors in different schools, and differences in regard to whether what was expected ought to be expected. Not only did we find differences among teachers within schools, but in many instances we found differences between schools. That is, teachers in one school would substantially agree that the counselor ought to do certain things, whereas teachers in another school would agree that he should not do these things. This finding implies that beyond the core role we described at the beginning of this section, an assortment of tasks for the counselor most likely to elicit the support of the faculty in one school might not do so in another.

SECTION II

Test Practices

This section concerns teachers' responses to items about various test practices in their respective schools. Our findings in Section I concerning teachers' ideas about what their schools ought to be doing in regard to keeping teachers better informed about tests and similar types of information led us to make a rather detailed study of those items in the "Test Practices" section of the questionnaire which dealt with the methods used by the school to disseminate test information to teachers.

The items discussed here are those which asked, "How do you find out about the scores students make on standardized tests once these are reported to the school? What methods does your school use in informing teachers of these scores? Do you think these methods are desirable? Are there other methods which would be better to use?"

We first examined the data to learn what practices are presently employed by the 28 schools in our study. The results of this analysis are reported in Table I. This table shows that the most common practice

TABLE I. Practices Employed by Schools to Provide Teachers with Information about Test Results

Practice	Number of schools in which the majority of teachers say that the practice: is done.*	is not done.
Scores are kept in the administration office and any may look them up who wish.	22	6
Scores are kept in a particular office and the appointed person will discuss the test results with any teacher who asks.	16	12
Reports of results in some form are given to the teacher to give to the students, and the teacher can look them over before handing them out.	0	28
Copies of actual scores are given to the teacher for the teacher to keep.	3	25
Copies of test results in descriptive form (not actual scores) are given to the teacher for the teacher to keep.	0	28
Group meetings are held at which test results are explained and discussed with the teachers.	2	26
Conferences are scheduled with individual teachers to discuss test results.	0	28

*In the few instances where teachers were equally divided on the matter, the school was tallied in the "is done" column.

is the relatively laissez-faire method of placing some or all test data in the files in the central office and making these available to any teacher who wishes to use them. The next most common practice is the more controlled method of having the data filed in a particular office and having the teacher go to the appointed person for information. It is apparent from the data in this table that many schools employ both methods -- the second being used, perhaps, for intelligence, personality, and other more confidential types of material. The table shows that only three of the 28 schools make provisions for the teacher to keep his own files on students, and that only two schedule group meetings in which he can obtain interpretations and engage in discussion about test results.

We next examined which of these practices teachers judged to be desirable, that is, which ones teachers felt ought to be employed by their school regardless of whether the school presently used the method. These data are reported in Table II. The data in this table reinforce the

TABLE II. Practices which Teachers Believe Ought to be Employed to Provide Teachers with Information about Test Results

Practice	Number of schools in which the majority of teachers say that the practice: is desirable.*	is not desirable.
Scores are kept in the administration office and any may look them up who wish.	16	12
Scores are kept in a particular office and the appointed person will discuss the test results with any teacher who asks.	22	6
Reports of results in some form are given to the teacher to give to the students, and the teacher can look them over before handing them out.	0	28
Copies of actual scores are given to the teacher for the teacher to keep.	5	23
Copies of test results in descriptive form (not actual scores) are given to the teacher for the teacher to keep.	0	28
Group meetings are held at which test results are explained and discussed with the teachers.	19	9
Conferences are scheduled with individual teachers to discuss test results.	5	23

*In the few instances where teachers were equally divided on the matter, the school was tallied in the "is desirable" column.

findings discussed in the first section of this report. Teachers desire more explanation and discussion of test data than schools presently provide, and this desire is relatively widespread among teachers and among schools. It is interesting to learn that teachers want actual test scores and direct information about them. This is evident in the 100 percent rejection of the practice of supplying teachers with "descriptive" materials or of casually informing them of test results via students.

SECTION III

Communication About Guidance and Counseling Within the School

This section deals with the booklet in which you listed the names of your colleagues, and then indicated how often you talked with each of them, and how much of your conversation concerned various topics. We report here only on one part of that series of questions: the part where you were asked what proportion of your conversation with others was devoted to topics of guidance and counseling. The analysis of all of the available data from the communication questionnaire is very complex and will occupy us for some months yet. We shall have more information for you in the fall.

In the part we are reporting on here, you were asked to indicate how much of your total communication with each person had to do with guidance and counseling. Before doing this, you had already crossed off the list those persons with whom you communicated less than once a month, as well as those with whom you infrequently discussed "teaching topics." In other words, when you answered our questions about how much of your conversation concerned guidance and counseling your list contained only those persons with whom you frequently discussed "teaching topics."

We first divided your answers into two categories: those which indicated that half or more of your conversation with the other person was about guidance and counseling, and those which indicated that less than half was about guidance and counseling. Persons you had already crossed off your list were counted in the "less than half" category. An easy way to think about this is that you gave every faculty member in your school a "score" which indicated whether you talked with him a great deal about guidance and counseling, or very little. And -- of course -- every faculty member in your school also gave you a "score" of this same type.

We then obtained a total score for you (as well as for every one else in your school) by adding up the individual scores that each of your colleagues gave you. We called this total score the conversant score. These conversant scores varied widely among persons in the 28 schools: from zero to 101. If you received a low or zero conversant score, it indicated that few, if any, of the faculty talk to you a great deal about guidance and counseling. If you received a high conversant score, it indicated that a great many of the faculty discuss such matters with you.

Our purpose in obtaining these scores was to learn how widespread guidance-and-counseling conversation is within a school. We wanted to discover, for example, whether a great many teachers are frequently involved in such conversations, or whether these matters tend to be regarded as the province of the guidance counselor and the principal.

Since our 28 schools varied greatly in number of faculty, these raw conversant scores were changed into percent scores so that schools of different sizes could be compared more easily. Hence the conversant scores discussed in the rest of this report indicate the percent of the total faculty who frequently discuss guidance and counseling matters with the individual, rather than the total number of such persons.

We first computed the mean conversant score for each school. We found that these mean scores varied from 10 to 33 -- indicating wide differences in the amount and generality of guidance-and-counseling conversation within faculties. Thus, in some schools the faculty as a group devotes a relatively small portion of its conversational time to such topics, while in others the faculty devotes a very substantial portion of time to them.

There are, of course, many reasons why this should be so. It might be the case in one school that the faculty entrusts matters of guidance and counseling largely to its staff specialists. In another school, teachers might make guidance and counseling so much a part of their daily routine that they would have difficulty singling out particular conversations in their thinking when answering our questionnaire. In still another school, a special program on a different topic might have been under development which was occupying the faculty's thoughts and conversations at the time we visited. And so on. We hope in later analyses to be able to point to some of the factors which are related to the differences we found in the average proportions of guidance and counseling conversation in the different schools. However, we do believe that these differences are reliable, since the conversant score for each person is based on what a number of other persons said about him; the score is not based on a self-report.

Our next step was to obtain a measure of the variation or spread of conversant scores within each school. Here again we found marked differences. In some schools the scores tended to bunch together at the low end of the scale, whereas in others they tended to spread out over almost the entire range of from zero to one hundred. Most schools, however, fell between these two extremes.

The bunching of conversant scores toward the low end of the scale on the one hand, or the spreading of the scores over a large part of the total range on the other hand, indicates differences between schools in who does how much talking about guidance and counseling. In schools where the scores bunch near the low end, most of the staff members devote a comparatively small proportion of their conversation to these topics, and most participate in such conversation with about the same number of other people. In schools where the scores are spread out there are more people who devote a relatively large portion of their conversation to guidance and counseling, and faculty members differ greatly in the number of others with whom they talk about these topics. To give you a picture of how two relatively extreme cases appear, Figure 1 shows the distribution of conversant scores in a school where the scores bunched closely near the low end, and Figure 2 shows the distribution in a school where the scores were widely spread out. Figure 3 is the distribution for your school.

It is difficult, at this early stage in the analysis, to suggest interpretations of the patterns shown in these figures, and certainly hazardous to say whether one kind of distribution is "better" than another. This coming fall, when we have had more time to probe into the complexities of these data, we hope to have information which will help you to interpret these differences.

There is, however, one striking finding which we believe to be of marked significance. As might be expected, counselors and principals receive higher conversant scores, on the average, than do teachers. This merely means that more people devote a greater portion of their conversations to guidance and counseling when they are talking to counselors and principals than they do when talking to other teachers. The point of interest here is that some teachers exceed counselors in conversant scores, and that the percentage of teachers in a school who exceed a given counselor in conversant scores varies widely from school to school. Specifically, the percentage of teachers in a school exceeding a counselor in conversant score varies from zero to 84 percent. This is a reflection of the well-known, but generally disregarded, fact that function in an organization does not always follow official organization. Some teachers provide much more consultation about guidance and counseling than do some counselors, even though in the "official" sense these matters are regarded as the province of the counselor. We hope to have further information for you on these topics in the fall. Perhaps then we shall be able to answer such questions as this: are the schools in which many teachers exceed the counselor in consulting about guidance and counseling also the schools in which many teachers wish the counselor would provide them with more information and advice about guidance, counseling, and testing?

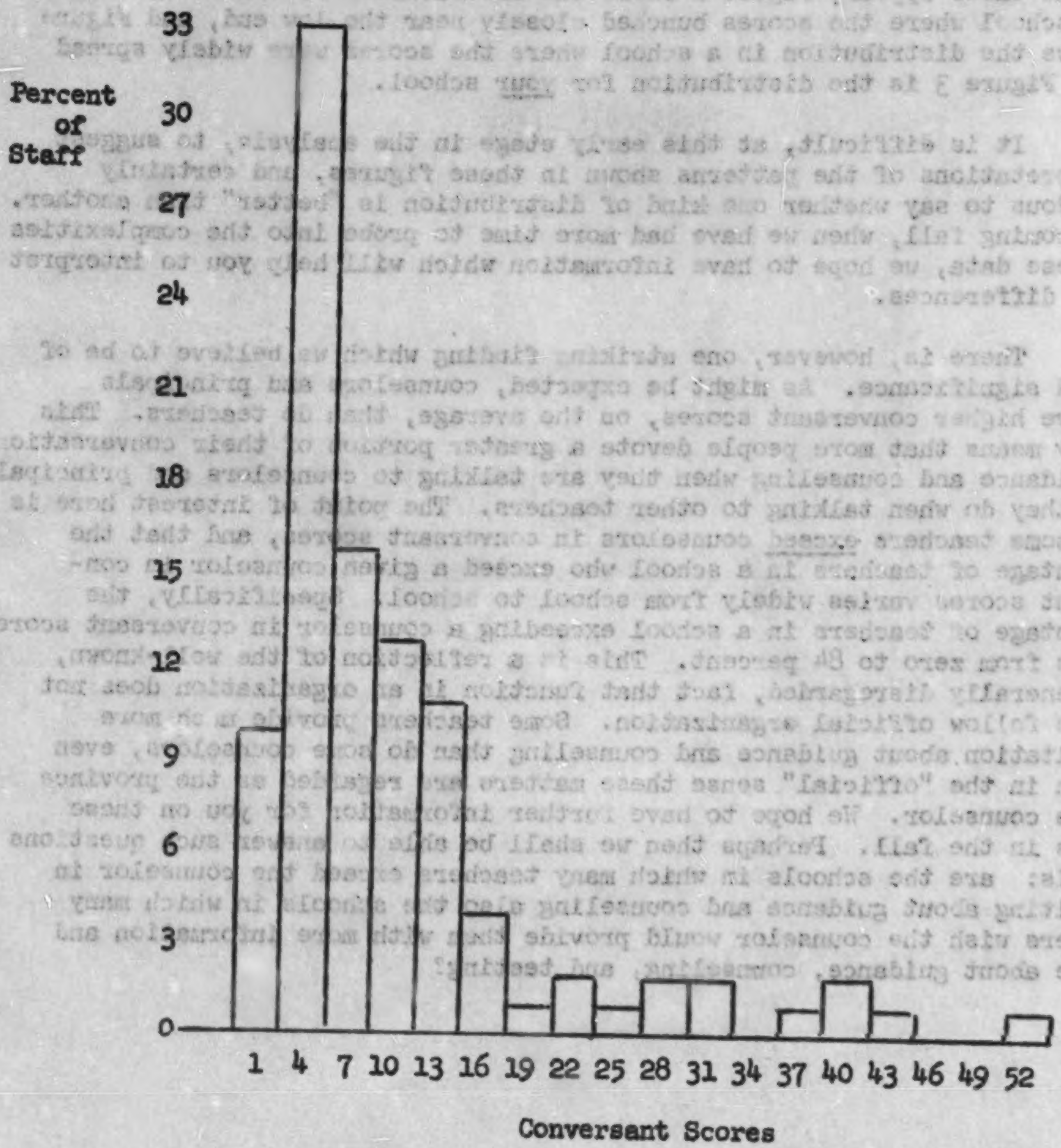

Figure 1

Example of a school with very low mean and variability on conversant scores. See text for explanation.

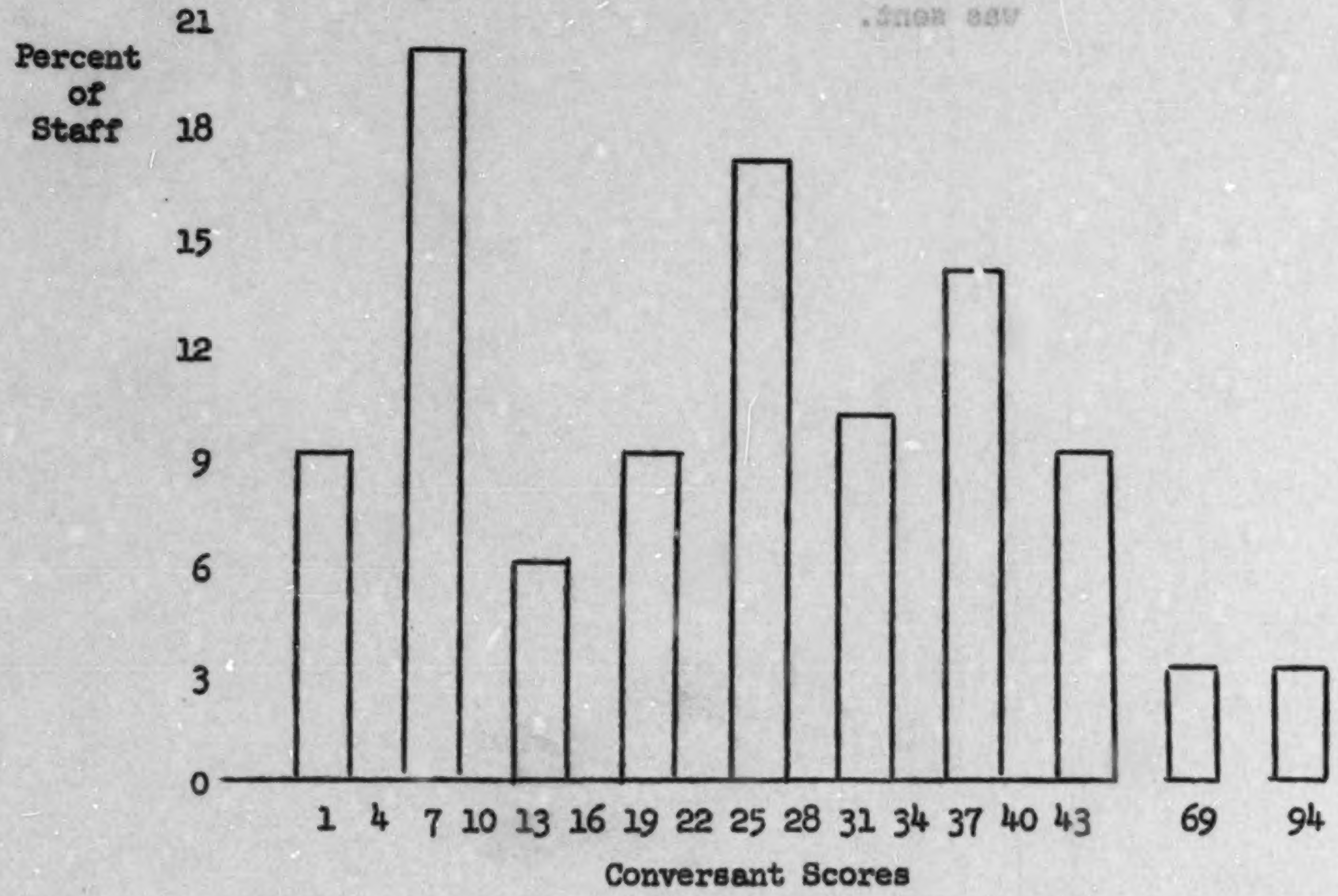

Figure 2

Example of a school with very high mean and variability on conversant scores. See text for explanation.

Figure 3

This page bore a chart describing the particular school to which the report was sent.

SECTION IV

Educational Viewpoints

In this section of the questionnaire we presented teachers with a list of 28 statements and asked them to state whether they agreed, disagreed, or were undecided about the educational issue under consideration. The statements were designed to assess philosophical attitudes and values regarding education in general.

We have not yet had time to make detailed analyses of the responses of teachers from different schools, nor the responses of teachers, counselors, and administrators spearately. To date we have been able to analyze only the responses of the total group of individuals in our study. This group can, we believe, be regarded as a large and relatively representative group of high school faculty members in the state of Illinois. Hence a general picture of what the majority of these persons presently think about American education is both interesting and informative.

In respect to an overall philosophy of education, there appears to be a merging of the "progressive" and "traditional" positions. When we pull together in narrative form the statements which greater than fifty percent of all teachers, counselors, and administrators affirmed, we obtain the following picture.

"Education must be practical; its goal is not mastery of content but the production of well-adjusted citizens. Our schools, however, being geared to the average child, are failing to develop students' ability to think critically and are not stimulating pupils to maximum achievement. Honors courses should be established for bright pupils, and all pupils who possess the necessary ability should take as much science, mathematics, and language as possible. This is not to say, however, that dull students should be pushed into shop and commercial courses or that college entrance subjects should be taken only by pupils bright enough to attend college."

When we examine teachers' philosophy of grading or marking students in school achievement, we find that a majority adhere to the following ideas:

> "Marks of 'A' in a subject should be given only to students of very high achievement, and the school report card should give greater emphasis to academic achievement than to work habits and personality traits. This does not mean, however, that pupils with the same test scores should receive the same grades. In fact, one of the troubles with modern education is that pupils are given too many short answer tests and not enough essay tests."

Finally, there was a great amount of indecision regarding the means of alleviating the current ills of our educational system. For example, 34% replied "undecided" to the item, "Should we have a nation-wide testing program of abilities?" Twenty-nine percent were undecided about, "Should there be a national standard for the high school diploma?", and 32% were undecided about, "Are schools that rank above the national norms on tests better than schools that rank below the national norms?"

SECTION V

Judgments About the Kind of Information Needed to Solve Different Types of Student Problems

To refresh your memory regarding this section of the questionaire we reproduce below one of the problems we gave you.

Problem 1

Joan McCauley has not turned in a single assignment since the beginning of the year. You have warned her that failure to turn in her home-work will result in her failing the course, but this has had no effect. She sits and day-dreams most of the time she is in class.

As a working guess, where would you say the source of this difficulty might lie? To check up on your working guess, what additional kinds of information would you seek? Please number the types of information (no more than three), and then check the best method of obtaining each of the types you have numbered.

	Achievement in school subjects	Family and home life	Intelligence	Fears and worries	Interests and ambitions	Personality and character
TYPE OF INFORMATION:						
METHOD OF OBTAINING INFORMATION:						
Observe the student in various kinds of situations						
Make discreet inquiries of classmates who know the student well						
Confer with the student						
Confer with the parents						
Confer with other teachers						
Consult files for test information						
Consult files for non-test information such as grades, anecdotes, etc.						

One of our purposes was to learn what kinds of information teachers, counselors, and administrators regarded as most important in dealing with the twelve different student problems contained in our questionnaire. To accomplish this we examined, for each problem,* the kind of information that was chosen first by each respondent. These data are reported in Table III.

TABLE III. Number of Respondents Choosing Indicated Kind of Information as First Choice in Each of Twelve Problems

	Problem in which indicated kind of info. was first choice											
Kind of info.	1	2	3	4	5	6	7	8	9	10	11	12
Achievement	**	**	*	*	*	**	*	*	93	*	**	*
Family	135	87	370	153	*	**	239	389	**	101	164	167
Intelligence	**	*	*	*	*	**	*	*	166	98	**	*
Fears	**	*	*	145	*	*	**	*	123	*	**	153
Interests	158	280	*	*	262	292	*	**	*	219	*	*
Personality	*	*	**	175	115	*	140	*	**	*	107	88

*Fewer than 40 respondents.
**More than 39 but fewer than 80 respondents.

One of the most striking facts about this table is the weight teachers apparently give to information about the student's family and home-life. In nine of the problems "Family" is consistently selected by a large portion of respondents, and in problems three and eight it is the majority choice. The responses to these problems seem to point up teachers' awareness of the significance of factors and forces outside the school in determining the student's in-school behavior. In regard to these problems, certainly, teachers did not regard academic achievement and intelligence as the sine qua non of students' existence; in fact these last are selected by large numbers of teachers in only two problems. The importance of students' interests, personality, and other non-academic qualities are also apparent in this table.

To learn whether teachers, counselors, and administrators approached these problems from similar points of view, we broke down the data in Table III for these three categories of respondents. The results are shown in Table IV, in which the two most frequently mentioned kinds of information are shown for each of our three groups of individuals.

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*Although there were 16 problems in the questionnaire, we are reporting on only 12. Four of the problems were perceived by respondents to be so similar to others that we have omitted them.

TABLE IV. Kind of Information Most Frequently or Second Most Frequently Picked as the First Choice by Administrators, Teachers, and Counselors

	Problems											
Group	1	2	3	4	5	6	7	8	9	10	11	12
Admin.	FAM INT[1]	ACH INT	FAM INT[2]	FEARS PER	INT PER	ACH INT	FAM PER	FAM INT	INTEL FEARS	INTEL INT	FAM INTEL	FAM FEARS
Teach.	FAM INT	FAM INT	FAM PER	FAM PER	INT PER	ACH INT	FAM PER	FAM INT	INTEL FEARS	FAM INT	FAM PER	FAM FEARS
Coun.	FAM INT	FAM INT	FAM PER	FAM[1] PER	INT PER	INTEL INT	FAM PER	FAM INT	INTEL FEARS	FAM INT	FAM PER	FAM FEARS

[1] Tied with Fears for second most frequently picked.
[2] Tied with Achievement for second most frequently picked.

The marked similarity in choice patterns over problems among the three groups is immediately apparent. In problems 1, 5, 7, 8, 9, and 12 teachers, counselors, and administrators are identical; in the remaining six problems teachers and counselors are identical except in the case of problem 6. We were surprised by this finding because we expected more differences between administrators, counselors, and teachers. However, others of our findings (for which there is not space in this report) also show that similarities between these three groups are more common than differences.

To aid you in a study of these findings the twelve problems which you judged were:

1. Joan McCauley has not turned in a single assignment since the beginning of the year. You have warned her that failure to turn in her home-work will result in her failing the course, but this has had no effect. She sits and day-dreams most of the time she is in class.

2. Bill Walters tells you that he has applied to two different universities and has been accepted by both. At University A he applied for entrance in the pre-law curriculum, and at University B he applied for entrance in the pre-medical curriculum. He says he doesn't know how to decide which college to attend.

3. Thomas McElroy has been reported for tardiness almost every day since school began.

4. Doris is a shy, withdrawn girl who is always alone and seems to have no friends whatsoever. Her appearance is entirely presentable and she is in good health. She confides to a teacher that she wishes she knew how to make friends.

5. John is a bright student and does well in every class except your own. He consults you about dropping it and taking another subject in its place. He tells you that he took your course only because his best friend had signed up for it and talked him into it.

6. Virginia Smith's parents want their daughter to go on to college, and Virginia herself wants very much to go. However, she has no idea what to major in.

7. Jim has been sent to the principal's office by two different teachers for his rude and sarcastic behavior in their classes. His view of every instance is, "The teacher started it."

8. Glen's teachers report that the boy comes to school so tired every day that he is always falling asleep in their classes. The school physician reports that he is basically in good health.

9. George Merwin is a transfer student new to the school this year. He was placed in the eleventh grade -- as indicated by his transfer record -- yet he is doing failing work in your class, and other teachers have told you that he is failing in theirs also.

10. Kay Johnson is enrolled in the college preparatory curriculum but is doing below average and failing work in mathematics and science. Her parents come to school at frequent intervals to talk to the teachers of these subjects, but Kay's work shows no improvement. Kay is active in every kind of school dramatics and has recently signed up to try out for the lead in the high school play. When reminded that she was doing failing work in some of her classes she said she didn't care as long as she passed.

11. Andy Wilson causes trouble for every teacher who has him. His classroom behavior is disruptive. He is constantly doing small things like shooting paper-wads, blowing bubbles with his gum and allowing them to pop noisily, deliberately dropping his books on the floor, deliberately tripping himself when he goes to the pencil sharpener, etc.

12. Jill's teachers report that the girl is constantly lying. On one occasion she told the math teacher that she couldn't take a test because her father was seriously ill and she was so worried about him that she couldn't study. On another occasion she told the English teacher that her mother had accidently burned up the theme she had prepared for class. On still another occasion she told the physical education teacher that she had broken her toe and couldn't play basketball. All of these things were completely false.

Our next step was to examine the methods teachers and others checked as being "best" for obtaining the kind of information they had selected as their first choice for the various problems. Table V shows by means of the numerals "1" and "2" the first and second most frequently chosen methods of obtaining different kinds of information, for each of our three groups.

TABLE V. First and Second Most Popular Choices of Teachers (T), Counselors (C), and Administrators (A) Regarding Best Methods of Obtaining Information about Students

Method of	Kind of Info.																	
obtaining info.	Ach.			Fam.			Intel.			Fears			Interest			Pers.		
about a student	T	C	A	T	C	A	T	C	A	T	C	A	T	C	A	T	C	A
Observe student										2	2	2				1		2
Ask other stu.																		
Talk to student				2	2	2				1	1	1	1	1	1	2	1	1
Talk to parents				1	1	1												
Talk to teachers	2		2					2										
Test info.		2					1	1	1				2	2	2			
Non-Test info.	1	1	1				2		2								2	

Table V shows that a high correlation exists between kind of information sought and method of obtaining it. For information about a student's family and home-life, fears, and interests, all three groups agree in their choices of methods to be used. But interesting differences appear in the cases of achievement, intelligence, and personality.

To obtain information about student achievement, a majority of individuals in each group agree that the best source is the record of school grades found in the files. However, a substantial minority in each group prefer a different method. In the case of teachers and administrators a second preferred source is to consult one or more teachers who know the student's work, but in the case of counselors the second preferred source is standardized achievement test scores.

Oddly enough, this pattern is essentially reversed when it comes to obtaining information about a student's general intelligence. Although a majority in each group report that they would consult the files for test information, a substantial minority prefer other methods. Teachers and administrators would go to the files for non-test information such as school grades and anecdotal records, but counselors would consult directly with teachers.

The greatest differences among these three groups are found when respondents report the methods they would employ to obtain information about a student's personality. A majority of teachers report that they would rely on observation, and a minority state that they would talk to the student. The reverse is true for administrators, a finding which probably results from the fact that teachers have far more opportunities for obwervation than do administrators. Counselors, however, apparently lean toward the "case-study" approach. That is, although the majority of them would talk to the student, a substantial minority would study the non-test information found in the school's files.

SECTION VI

Judging Students as to Suitability for an Advanced Science Class

One of the tasks you helpfully performed during your interview with us was a card-sorting task in which each card represented the cumulative record of an imaginary eleventh grade student. After examining the information contained on the card you decided whether you would recommend that the student be placed in an accelerated science class or in a regular science class.

The information on the cards was of several kinds. It included scores on tests of intelligence, achievement, and interests, and also comments by fictitious teachers and student-advisors about the students' interests, abilities, and school work in general. As you probably recall, not every kind of information appeared on every card, some cards having as many as six and others as few as two or three kinds of information. Every teacher, counselor, and administrator* was given the same set of 28 student cards.

Table VI shows the wide range of differences among individual teachers, counselors, and administrators in their perceptions of how many of the 28 students ought to be placed in the accelerated class. The most significant fact revealed by this table is that the differences between these three faculty groups are negligible, whereas the differences within each group are extreme. This indicates that the individual teacher's own values are far more important in determining the decision he makes about a student than is his position in the school, or the data he finds on the card.

As stated above, some of the data on the student record cards were in the form of objective test scores, and some were in the form of subjective evaluations of students' abilities and interests made by the students' teachers and advisors. On a few cards these two types of data were in close agreement, but on many of the cards they were not. One question we asked ourselves was, "When test score data do not agree with the subjective evaluations made by experienced teachers, on which type of data do teachers tend to place greater weight in making a decision about a student?"

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*The category "administrator" includes principals, assistant principals, deans, and department heads.

TABLE VI. Number of Teachers, Counselors, and Administrators Placing the Indicated Number of Cards in the Accelerated Science Group

No. of Cards (out of 28) Placed Accel.	Teachers	Counselors	Administrators*
20-21	1		
18-19	5	3	1
16-17	28	4	6
14-15	64	10	12
12-13	114	10	27
10-11	109	11	28
8- 9	80	6	17
6- 7	47	13	12
4- 5	24	3	16
2- 3	13	1	5
0- 1	2	1	4
Total	487	62	128
Mean	10.2	10.1	9.1
S. D.	3.5	4.1	4.0

*Includes principals, assistant principals, deans, and department heads.

To answer this question we gave each student record card a weight to indicate how much conflict existed between what the tests said about the student's abilities and interests and what the student's teachers said about his abilities and interests. When these weights were summed over cards, we obtained a score for each individual which provided an estimate of the direction the individual leaned -- toward accepting test information or non-test information -- in making his decision about whether to place the card in the accelerated class. These scores had a possible range of from 24 to 88 with a mean of 56. A score greater than 56 indicated that the individual was more influenced by what the tests said about the student, whereas a score of less than 56 indicated that he was more influenced by what the teachers said.

Table VII shows the distributions of these scores for all teachers, counselors, and administrators. The mean scores for these three groups show that teachers tend to place less weight on test data than do counselors and administrators.* This might be due to the fact that counselors and

TABLE VII. Scores Made by Teachers, Counselors, and Administrators on the Card-Sorting Task

Score	Interpretation	Teachers	Counselors	Administrators
88		6		1
84-87	Places heavy weight on test data	2	2	1
80-83		13	6	12
76-79		31	4	14
72-75		32	6	10
68-71		33	7	13
64-67		49	4	12
60-63	Places approximately equal weight on test data and teachers' judgments	46	7	8
56-59		59	9	19
52-55		31	6	4
48-51		37	6	7
44-47		35	2	7
40-43		36	2	12
36-39		32	1	4
32-35	Places heavy weight on teachers' judgments	21		2
28-31		17		2
24-27		7		
	Total	487	62	128
	Mean	54.8	62.0	62.0
	S. D.	14.8	14.5	14.6

---

*These differences are significant at the 1% level.

administrators have more experience with tests and test scores, hence tend to rely upon them more heavily. On the other hand it might be that teachers, having closer contact with students than either counselors or administrators, feel that their own personal experience with students gives more trustworthy information about students than tests would give. This would lead teachers to place greater faith in other teachers' judgments of a student than in a standardized test score. However, the tremendous overlapping of scores in all three distributions indicated that there is no simple or single explanation for the differences in the mean scores for these groups.

Our next question was, "How do schools differ in regard to the weight their respective faculties place on test data in making decisions about students?" To answer this question we averaged the scores made by all teachers, counselors, and administrators in each of the 28 schools. These data are reported in Table VIII. We were somewhat surprised to find such a sizeable range of mean scores: the actual range was from 49.4 to 65.5. This finding indicates that one of the factors which influences the use of test data in making judgments about students is the school itself. Are schools whose faculties place greater weight on test data ones in which teachers are kept better informed of test results? Are they schools with larger guidance staffs? Are they schools which have broader and more comprehensive testing programs? We hope to obtain answers to these and related questions as this study progresses.

TABLE VIII. Mean Scores made by Schools on the Card-Sorting Task

Mean Scores	Interpretation	No. of Schools
64-67	Places heavier weight on test data	1
60-63		8
56-59	Places approx. equal wt. on test data and teachers' judgments	10
52-55		5
48-51	Places heavier weight on teachers' judgments	4

SECTION VII

An Objective Measure of Test Knowledge

All staff members except principals were given a sixty-question test to assess the amount of knowledge they possessed about the use and interpretation of tests and test results. The distributions of scores are shown below:

Total Score	**Counselors**	**Teachers**	**Dept. Heads, Deans, etc.**
55-59		1	
50-54	2	1	
45-49	14	11	2
40-44	26	21	3
35-39	19	63	9
30-34	12	103	20
25-29	6	88	17
20-24	1	65	9
15-19		18	2
10-14		3	1
5- 9			
0- 4			
Total	80	374	63
Mean	39.1	30.2	30.1
S. D.	6.4	7.2	6.8

Maximum possible score: 60

As one would expect, counselors make significantly higher scores than do teachers. One interesting thing about the distributions, however, is the fact that as a group teachers answered half of the test questions correctly. It is both rewarding and revealing to learn that the average classroom teacher possesses this degree of sophistication about the more technical aspects of tests and measurement.

SECTION VIII

Summary

This report has presented the merest suggestion of findings which we shall have for you as the study progresses. Already, however, some interesting information is appearing.

Teachers in 28 schools of varied characteristics in Illinois agree on a core role for the high school counselor; they agree on certain things which he should do. Beyond this, however, there are two fairly clear schools of thought about how the counselor should relate himself to the faculty, one school believing that he should maintain a teacher perspective by appropriate activities and the other believing that he should be assigned duties which will enhance his role as a specialist. Regardless of these differences, there is an impressive demand among teachers that the counselor spend more time than he typically does in bringing guidance information to the faculty. Evidence for this latter demand appeared in answers to questions about the counselor's role and also in answers to questions about how test results are distributed to teachers in the school.

The amount of discussion about guidance and counseling varies widely among schools. In many schools a few individuals stand out from the majority in the proportion of their conversation they devote to guidance and counseling. These individuals, although typically counselors and principals, are not invariably so. In several schools there are teachers who are more sought out by others for discussions of guidance and counseling than are one or more of the counselors in the school. It would be useful to know whether these "high conversants" among teachers are aiding the counselor or are in competition with him!

Responses to questions about general educational issues are interesting in the light of current controversies. The central tendency in the answers seems to show a desire or even a determination to exercise and develop the potentialities of all kinds of students, whether academic, vocational, or whatever. At the same time, there is uncertainty -- perhaps a cautious attitude -- about some of the large-scale proposals currently being advanced.

Attention to the different potentialities and resources of different kinds of students, as well as appearing in general educational viewpoints, also appeared in the frequency with which teachers said they wanted to know about the student's home and family when presented with vignette problems about students. The tendency to want to understand more about the student who has a problem stood out clearly. It was also clear that teachers as a group do not have any rigid rule for dealing with students who present problems; the kind of information most often desired differed from problem to problem. Interestingly, when any one type of problem is considered, there were only small differences in the responses of teachers, counselors, and administrators.

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The judgments of teachers, counselors, and administrators were also similar when given the special task of saying how many students in a standard group of imaginary students described by simulated "student record cards." When judgments were scored for amount of weight the respondent put on test information in contrast to non-test information, however, it was found that counselors and administrators, on the whole, put more importance on test information than on non-test. Although, as may be seen in Table VII, some persons in all three groups put heavy weight on test information and some put heavy weight on non-test information, teachers as a group put very close to equal weight on test and non-test information.

Finally, in the results of a formal test of knowledge of technicalities of testing, it was not surprising to find that the average score for counselors was higher than those of teachers and administrators. It was interesting, however, to discover that the average teacher and administrator answered correctly more than half of the items on this test, since it was well above the elementary level and well sprinkled with technical terms.

APPENDIX K

Second Report to
Participants

Summer Guidance Institute

Follow-Up Study

REPORT NO. 2

to participants

Winter 1961

ompiled by Philip J. Runkel, Dora
. Damrin and J. Thomas Hastings
February 1961

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Section I

HOW THIS REPORT IS ORGANIZED

Last spring we sent you a preliminary report of the results we had accumulated up to that time. In addition to that report we sent every participant a letter which contained the "scores" he or she had received on the instruments we used for collecting data. The central focus of the first report was upon the individual teachers, counselors, and administrators in the 28 schools of our study. By contrast, the focus of this present report is upon the different schools in our study.

Section II provides information about how these 28 schools perceive and define the counselor's role. Responses of teachers to all 39 questions in the Counselor's Role Checklist are presented and discussed in detail. Section III contains an unusual way of depicting relations within a faculty. Here are presented the results of our analysis of each school's communication network. The analysis is restricted, of course, to communication about guidance, counseling, and testing.

Section IV provides additional information about teachers' communication about tests and their general knowledge of tests. Differences among the 28 schools in this respect are presented and discussed. Finally, Section V contains a general summary of our findings and some of their broader implications.

Section II

THE COUNSELING ROLE

In the fall of 1959 faculty members in all 28 schools were asked what they expected of a particular counselor--the counselor who had been a Summer Institute participant (SIp) at the University of Illinois during the summer of 1959. This was done by presenting each staff member with a list of 39 duties often assigned to counselors and asking two questions:

1. What, in your understanding, is the SIp presently expected to do as part of his assigned duties?
2. In your opinion, is this a desirable or appropriate thing for him to do?

Because we believed that the counseling behaviors teachers deemed "appropriate" would be of direct interest to teachers and counselors engaged in working with each other, this section is largely devoted to an analysis of responses to question No. 2.

The position of the school counselor implies, of course, a demand that there are certain duties he will perform and other duties that he will not perform; in brief, it calls for a "role prescription". Accordingly, one of our most important questions was, "What, precisely, is this role prescription and how general is it?"

To answer this question we tallied the responses of all staff members in each school to each of the 39 items. Every item could be answered "Yes, this is appropriate", or "No, this is not appropriate", or "I am Uncertain whether this is or is not appropriate." Accordingly, we were able to obtain a relatively accurate picture of the role prescribed by the teachers in each individual school, as well as of the generality of this role over all 28 schools. We did this by classifying each item in one of the following six categories:

Yes (2/3):	Two-thirds or more of the faculty in the school said, "Yes, this is an appropriate duty for the SIp to perform."
Yes-50-percent:	Half or more of the faculty (but less than 2/3) stated "Yes, this is appropriate."
Yes-No Split:	Approximately half of the faculty said, "Yes, this is appropriate," and approximately half said, "No, this is not an appropriate duty for the SIp to perform."

No-50-percent: Half or more (but less than 2/3) stated, "No, this is not appropriate."

No (2/3): Two-thirds or more said, "No, this is not appropriate."

Uncertain: One-third or more responded "Uncertain" to the item, with the remaining members more or less divided between Yes and No.

Table I provides a picture of the amount of agreement regarding counseling behaviors deemed appropriate in each of the 28 schools. Schools which are high on the list are those in which there is a high degree of faculty agreement, those near the center are ones in which there is a lower amount of faculty agreement, and those at or near the bottom are ones characterized by a substantial amount of uncertainty, divided opinion, or both. The table is read as follows: in School 603, two-thirds or more of the faculty answered "yes" to 28 of the 39 items, half or more of the faculty (but not two-thirds) answered "yes"to eight other items, and so forth. The numbers in each row of the table, of course, sum to 39.

One cannot help but wonder in what ways schools characterized by divergence and uncertainty in regard to the counselor's role differ from those characterized by the solidarity of consensus. This question, like many others raised in this report, is one which we hope to answer as our analysis proceeds.

One should not, of course, interpret Table I to mean that the schools listed at the top are "good" schools and those at the bottom "bad". Many of us might agree that it would be a good thing for a school to try out new and better ways of operating its counseling program. But whenever changes are made, there are inevitably those who are for them and those who are against them. A period when dissenting opinions are clear and loud is one of the prices of change. There are certainly many factors--and often useful factors--which could produce disagreement over the counselor's role.

Table I. Number of items out of the total of 39 in the Counselor's Role Checklist which each school faculty marked as indicated.

School	Yes 2/3	Yes 50%	Yes-No Split	No 50%	No 2/3	Uncertain
603	28	8	3	0	0	0
281	24	6	3	2	1	3
602	24	7	4	3	1	0
495	21	6	6	1	3	2
091	20	8	6	2	3	0
153	21	10	3	1	2	2
117	21	9	6	1	1	1
488	20	3	9	4	2	1
264	19	7	8	1	3	1
463	19	11	5	1	3	0
484	19	7	4	3	2	4
526	19	7	6	0	2	5
604	19	5	9	0	2	4
430	18	11	4	1	2	3
601	18	2	10	5	2	2
531	18	10	7	1	1	2
274	17	7	11	2	2	0
600	16	8	9	2	2	2
018	15	13	7	2	2	0
343	14	9	6	4	3	3
280	14	8	8	7	2	0
415	14	12	9	1	2	1
177	13	8	10	2	1	5
257	11	11	9	4	4	0
301	11	8	14	0	4	2
244	11	13	2	2	2	9
538	9	6	12	4	3	5
188	9	7	14	3	2	4

We turn now from our analysis of the amount of consensus which exists within specific schools to a study of the amount found among all 28 schools to discover which ones of these 39 counseling behaviors met with high agreement from school to school, and which met with low agreement. To learn this we tallied, for each of the 39 role items, the number of schools whose faculties marked the item with each particular level of agreement described earlier. We then arranged the items in a rough order from those showing high Yes-agreement, through those showing a high degree of divided opinion, to those showing high No-agreement. We found that, when examined in this manner, the items fell into the six more or less discrete groups discussed below.

Group I consists of the eight items on which there was a heavy 2/3 Yes-agreement among 23 or more of the 28 schools (Table II). In other words, these eight items describe counseling behaviors which a large majority of our 700 and more teachers, counselors, and administrators responded to with, "Yes, the SIp ought to do this." Here, then, is the core role of the counselor. Let us examine its components.

All but three of the items (3, 6, and 8) portray the counselor as working directly and individually with students and their parents. Items 6 and 8, although describing work with teachers rather than with students or their parents, emphasize the counselor's response to the needs of individual students. All the duties listed in Group I, including Item 3, seem to be duties which make no routine demands on the teacher. Even Items 6 and 8 seem to imply advisory duties which would typically be carried out at the request of teachers who encountered problems with individual students.

The counselor's core role is thus defined as a service function, exemplified by working directly with individual students and their parents and by working with teachers regarding individual students' problems.

TABLE II. Items on which three-fourths or more schools showed a two-thirds Yes-agreement.

	Number of schools agreeing on:					
Group I Items	Yes (2/3)	Yes (50%)	Yes-No Split	No (50%)	No (2/3)	Uncertain
1. Explain to parents (when they ask) the general meaning of certain of their child's test results and confer with those who come in with problems concerning their children.	28					
2. Counsel students regarding choice of high school courses, high school curricula, and possible vocations.	27	1				
3. Advise on grouping students into ability levels and on routing them into various courses of study. (College preparatory, vocational, etc.)	26	2				
4. Make a study of test data and select particular students to be called in for conference.	25	2				1
5. Conduct group meetings with students to discuss general questions of curriculum and course selection, and how test scores can help answer those questions.	23	5				
6. Conduct small faculty "case conference" meetings on particular students in which test and other data are brought into proper perspective.	24	3				1
7. Notify all students that certain test data have been received and encourage them to come in for conference regarding them.	25		3			
8. Assist staff members in deciding which students should be enrolled in certain courses (e.g. algebra vs general math, chemistry vs general science, etc.)	24	1	2			1

Group II is composed of 10 items describing behaviors on which at least three-fourths of the schools reported a 2/3 or 50-percent Yes-agreement, although several schools evidenced divided opinion and uncertainty (Table III). The overall agreement on these items is still high, but cannot be compared to that arrived at for the Group I behaviors. A study of the Group II items provides some clues as to the reasons for this. In contrast to Group I-- the *service* group--Group II consists largely of items which make direct demands upon the teacher. The items have a mandatory flavor: for example, "establish regular conferences," "conduct scheduled meetings," "send written notices;" they imply the addition of time-consuming duties to teachers' present (and already heavy) schedules. This explanation receives further support in the finding that items 10 and 12 are located a little higher in the group than are items 14 and 16. These pairs of items are very much the same, except that the less preferred items, 14 and 16, are more explicitly mandatory: they specify the "authority of the principal." In short, although the items of Group II seem to describe duties generally similar to those of Group I, the difference seems to be that the participation of teachers is required by others, rather than being left to the teachers' initiative.

However, even if this interpretation is correct--or perhaps *especially* if it is correct--it is impressive to find such a clear preponderance of opinion that the counselor ought to engage in behaviors which obviously do make additional demands upon teachers' time.

Group III items are those in which more than half of all schools fell in the two Yes columns (Table IV). In this group we observe a marked increase in the Yes-No Split column, as well as in the two No columns. These items seem to typify duties which might well be handled differently by different *schools*, and also differently by different counselors *within* a school. Item 22, for example, might be handled by an administrative assistant in one school and by a counselor in another. Items 25,26,27 might well be the province of the Director of Guidance in schools with large counseling staffs, and the SIp (about whom teachers were asked to answer specifically) would not be assigned them. Certainly the Group III items fail to have a distinctive quality such as we felt to be evident in Groups I and II.

TABLE III. Items on which three-fourths or more schools showed at least a fifty percent Yes-agreement.

Group II Items	Number of schools agreeing on: Yes (2/3)	Yes (50%)	Yes-No Split	No (50%)	No (2/3)	Uncertain
9. Compile and arrange a file of selected information about students which is freely accessible to all teachers.	19	8	1			
10. Invite teachers to group meetings to learn more about the interpretation of tests.	19	7	1	1		
11. Establish regular conferences with individual teachers to discuss actual student cases.	17	8	2			1
12. Invite teachers to group meetings to learn more about the aims, techniques, and values of counseling.	17	6	5			
13. Counsel students regarding family and other types of emotional problems.	16	9		2		1
14. Conduct meetings scheduled by authority of the principal in which teachers can learn more about the interpretation of tests.	15	9	4			
15. Conduct a study of student needs and use the results to plan the conduct of counseling services.	15	8	2			3
16. Conduct meetings scheduled by authority of the principal in which teachers can learn more about the techniques, purposes, and values of counseling.	15	7	5			1
17. Conduct a general faculty briefing meeting after test data are received and discuss the results and possible uses in general terms.	14	8	5			1
18. Send written notice to all staff members that test data have been received and are available.	9	12	3	4		

TABLE IV. Items on which half or more schools showed a two-thirds or fifty percent Yes-agreement.

		Number of schools agreeing on:					
	Group III Items	Yes (2/3)	Yes (50%)	Yes-No Split	No (50%)	No (2/3)	Uncertain
19.	Teach at least one regular subject-matter class. (e.g. math, English, etc.)	16	4	4	2	2	
20.	Set up a schedule of required conferences with all students regarding their test results.	14	5	6		2	1
21.	Act as a first level of referral for failing students.	11	8	7			2
22.	Maintain the cumulative student record files.	15	2	8	3		
23.	Confer with teachers regarding general problems of motivation, discipline, etc.	9	10	6	1		2
24.	Confer with individual teachers regarding the kinds of tests they might need in their own work.	7	11	8	2		
25.	Conduct small group faculty meetings to discuss the interpretation and use of tests to help solve problems specific to that group (e.g. science department, language department, etc.)	9	7	9	1		2
26.	Hold small group faculty meetings to discuss the particular needs of various departments (such as Science, Industrial Arts, Language, etc.) in regard to the kinds of tests that would be most useful.	3	13	9	3		
27.	Make a study of test and other data and draw up a general report for the principal regarding the student body at large.	1	14	11	2		

Group IV (Table V) consists of items on which neither the Yes columns nor the No columns claimed more than half the schools (in fact, only in the case of Item 32 did the Yes columns contain as many as half the schools). In other words, these items are ones which possess the least agreement both within and between schools. With the exception of Item 32, all are of the "blanket policy" type and imply dealings with large groups of persons on broad and general issues. There is little or no provision for individual contact and discussion. It is possible that the division of opinion found on these items resulted from the ambiguity implicit in the descriptions of such large and generalized behaviors.

Group V items (Table VI) are ones characterized by a preponderance of No-agreement--a preponderance which makes them as definitive of the core role of the counselor as are the items in Group I. Group I items specify what the counselor ought to do; Group V items specify what he ought not do. Despite their small number, the three items are extremely interesting because they draw a clear line of demarkation between "counseling" and three discrete areas of the school's total operation. Thus:

1. The counselor is not to engage in extra-curricular duties which are typically considered the province of the classroom teacher.

2. The counselor is not a disciplinarian.

3. The counselor is not an "educated clerk".

We anticipate that these beliefs, so obviously widespread among high school teachers, will be greeted with sighs of relief and pleasure by members of the counseling profession.

Group VI items (Table VII) are to be distinguished from Group IV items (Table V) primarily on the ground that VI items show a great deal of uncertainty in addition to the divisiveness of opinion which characterizes both groups.

TABLE V. Items on which half or fewer schools showed a Yes agreement and half or fewer showed a No agreement.

Group IV Items	Yes (2/3)	Yes (50%)	Yes-No Split	No (50%)	NO (2/3)	Uncertain
	Number of schools agreeing on:					
28. Notify all parents that certain test results have been received and encourage them to come in for conferences.	2	10	12	2		2
29. Conduct general faculty planning meetings to discuss staff needs with regard to the kinds of tests that would be most useful.	5	5	11	3		4
30. Conduct large group meetings with parents (for example, at PTA) to explain and interpret test scores in general terms.	4	6	14	2		2
31. Meet with students as a group and discuss their test results in general terms.	3	7	13	2	1	2
32. Chaperone school dances, athletic events,etc.	9	5	8	3	1	2

TABLE VI. Items on which half or more schools showed a two-thirds or fifty percent "No" agreement.

Group V Items	Yes (2/3)	Yes (50%)	Yes-No Split	No (50%)	No (2/3)	Uncertain
	Number of schools agreeing on:					
33. Have an extra-curricula club.	1	1	6	9	11	
34. Act as a first level of referral for disciplinary and truancy problems.		1	5	4	17	1
35. Be responsible for such things as re-admitting students after absences, transferring students to other schools,etc.	3			2	23	

TABLE VII. Items on which a sizable proportion of schools evinced "Uncertainty".

	Group VI Items	Number of schools agreeing on: Yes (2/3)	Yes (50%)	Yes-No Split	No (50%)	No (2/3)	Uncertain
36.	Make a study of test data and select particular parents to be called in for conferences.	7	8	3			10
37.	Conduct special classes in "careers", "group guidance", "marriage", etc.	3	6	9	5		5
38.	Assist teachers to build their own files for the students in their classes (or in their home-rooms).	1	5	11	4		7
39.	Arrange for group tests to be scored by agencies outside the school.	2	2	11	3	1	9

Whether the uncertainty on the Group VI items stems from teachers' indecision regarding which counselor (the SIp or some other) should perform these duties, or whether it stems from their indecision regarding the appropriateness of the duty for any counselor is difficult to say. In any event, these four items certainly seem to represent "fringe" as contrasted to "core" responsibilities.

The finding that only one item in this list of 39 could muster a two-thirds agreement among all schools (Item 1, Group I) completely astounded us. However, not being professional counselors ourselves, we thought maybe we were crazy; maybe this lack of consensus regarding the counseling role was a fact widely known and accepted among professionals. Accordingly, we sought out several experts at the University--including some who had conducted the 1959 guidance institute--and presented them our list of counseling behaviors. "On how many of these," we asked each expert, "do you think that at least 2/3 of the teachers in all 28 schools would agree?" The answers we received ranged from as high as "a majority of them" to as low as "about half-a-dozen." All the experts were surprised to learn that only one item reached that level of agreement. Apparently the experts were as ignorant of the diversity of teachers' preferences as were we.

A question which now reasonably arises is: what about these duties which faculties believe the SIp ought--or ought not--to perform? What are SIp's doing that faculties believe they ought not be expected to do, and what are SIp's not doing that faculties believe they ought to do? These data are presented below. The first list (see Table VIII) consists of the 22 items on which a majority of the faculty in one or more schools said, "No, SIp is not expected to do this, but he ought to be."* The second list (Table IX) consists of items on which teachers reported, "Yes, SIp is expected to do this, but he ought not to be." The items in each list are arranged in order according to the number of schools so responding, and are numbered the same as they were in the preceding groups of items.

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*More precisely, we looked at the responses in each school for those items which a majority of the faculty agreed were things the SIp was not expected to do. For each of these items we looked to see whether at least a majority of the faculty agreed that this ought to be a duty for the SIp. For example, the table shows that it was true in 11 schools that a majority of the faculty said the SIp was not expected to "Invite teachers to group meetings..." while at the same time a majority said that it would be appropriate for him to do so.

TABLE VIII. Items on which one or more school faculties stated that the SIp is "not expected to do this but ought to be."

Group	Item No.	Item	No. of Schools
II	12	Invite teachers to group meetings to learn more about the aims, techniques, and values of counseling.	11
II	14	Conduct meetings scheduled by authority of the principal in which teachers can learn more about the interpretation of tests.	8
III	26	Hold small group faculty meetings to discuss the particular needs of various departments (such as Science, Industrial Arts, Language, etc.) in regard to the kinds of tests that would be most useful.	8
II	10	Invite teachers to group meetings to learn more about the interpretation of tests.	7
II	16	Conduct meetings scheduled by authority of the principal in which teachers can learn more about the techniques, purposes, and values of counseling.	7
III	24	Confer with individual teachers regarding the kinds of tests they might need in their own work.	7
III	25	Conduct small group faculty meetings to discuss the interpretation and use of tests to help solve problems specific to that group (e.g. science department, language department, etc.)	6
II	17	Conduct a general faculty briefing meeting after test data are received and discuss the results and possible uses in general terms.	6
III	27	Make a study of test and other data and draw up a general report for the principal regarding the student body at large.	5
I	6	Conduct small faculty "case conference" meetings on particular students in which test and other data are brought into proper perspective.	4
VI	38	Assist teachers to build their own files for the students in their classes (or in their home-rooms).	4

TABLE VIII (continued).

Group	Item No.	Item	No. of Schools
II	11	Establish regular conferences with individual teachers to discuss actual student cases.	3
II	18	Send written notice to all staff members that test data have been received and are available.	3
IV	29	Conduct general faculty planning meetings to discuss staff needs with regard to the kinds of tests that would be most useful.	3
II	15	Conduct a study of student needs and use the results to plan the conduct of counseling services.	2
IV	30	Conduct large group meetings with parents (for example, at PTA) to explain and interpret test scores in general terms.	2
III	23	Confer with teachers regarding general problems of motivation, discipline, etc.	2
IV	31	Meet with students as a group and discuss their test results in general terms.	1
I	5	Conduct group meetings with students to discuss general questions of curriculum and course selection, and how test scores can help answer these questions.	1
VI	37	Conduct special classes in "careers", "group guidance", "marriage", etc.	1
VI	36	Make a study of test data and select particular parents to be called in for conferences.	1
V	34	Act as a first level of referral for disciplinary and truancy problems.	1

TABLE IX. Items on which a school faculty stated that the SIp "was expected to do this but ought not to be."

Group	Item No.	Item	No. of Schools
V	34	Act as a first level of referral for disciplinary and truancy problems.	1
III	19	Teach at least one regular subject-matter class. (e.g. math, English, etc.)	1

When half or more of a school's faculty state that the SIp should do something he is not now expected to do in his school (or conversely) we can reasonably refer to this behavior as a generalized dissatisfaction with the school's present definition of the SIp's role. With this idea in mind, a noteworthy feature of the two lists above is that on no item did as many as half of the schools appear to be dissatisfied; dissatisfaction on the part of three or fewer schools account for more than half the items in Tables VIII and IX. This seems to indicate that the preponderance of the 28 schools contained majority approval of what the SIp was then doing.

It is important, however, to examine with care the first eight items in Table VIII--the items which receivedthe heaviest "vote of dissatisfaction" of the entire 39. Examination reveals that every one of the eight items deals directly with a demand for more adequate communication between the counselor and the faculty at large. Teachers want to be informed about guidance, testing, and counseling; they seem to perceive the counselor as the fount of such information; and they report that this--above all other areas--is the one in which the counselor is most remiss. It is true that dissatisfaction in this area did not rise to a majority of the faculty in as many as half the schools. On the other hand, a desire for increased activity on the part of the counselor which centers upon a particular kind of activity (i.e., information-giving) and which is reported by a majority of the faculties in from 6 to 11 schools out of 28 is a body of opinion worthy of serious attention.

Finally, a note about validity can be added here. Whenever people are answering questionnaires, there is always a good possibility that many will give the answers they think are wanted--the "socially desirable" answers, as they are often called. Certainly teachers are not immune to the desire to look good to outsiders. If most teachers had given answers which would make their school look "good", instead of providing us with their frank and realistic perceptions, we would have expected that most would report that their SIps did everything on the list that looked like it might be a "good" thing. Clearly, this did not happen. Combined with the substantial amount of agreement which existed in most schools was the finding that more than half of the teachers in many of the schools reported that the SIp was not doing something they thought it would be a good idea if he did do. This result increases our confidence in the trustworthiness of the findings.

Section III

COMMUNICATION ABOUT GUIDANCE AND COUNSELING

In the fall of 1959 every participant was asked to answer questions about his communication with other staff members in his school. In our first report we sent you a preliminary analysis of these data in the form of a bar graph showing how your school compared with others in the spread of communication about guidance and counseling among the faculty. You will recall that schools varied widely in this respect, and that we promised you more detailed and accurate data in our second report. We have now completed this analysis and can provide a picture of the communication network in your school as it appeared in the fall of 1959. Subsequent analyses will show how this picture changed over the period of a year and will investigate some of the factors associated with change--or with the absence of change.

Bound in this section are four charts which illustrate a few of the types of communication patterns we found among the 28 schools. If your school is not one of these, you will find a loose sheet inserted in this report which bears your own school's chart.

In reading this chart, and also in locating yourself on it, there are four important things for you to keep in mind. These are:

1. The cutting point. The only persons who appear as small circles on the chart are those who conversed with another staff member about guidance and counseling at least once per week--or the equivalent.* Individuals who conversed less than this amount about these particular topics do not appear in the diagram. The number of persons below this cutting point is noted on each chart.

2. The Sample. Only the individuals participating in our study appear on the chart--either as circles in the diagram itself or in the note telling how many persons were below the cutting point. For example, if Miss Jones talked a great deal with teachers not in our study, this information would not appear

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* The manner in which we determined conversations "equivalent" to one per week between two persons is explained in the Appendix.

on the chart because we collected no data on those teachers. This point should especially be noted in the larger schools, in which only selected members of the faculty were asked to participate.

3. *Mutual Links*. The only persons who are connected by a line on the chart are those who *both* reported communication with each other at or above the cutting point. For example, if Miss Jones reported weekly or daily conversations with her principal, but the principal reported fewer or no such conversation with Miss Jones, there would be no line connecting these individuals.

4. *Graphic Placement*. On these charts the position of an individual's circle and the length of the lines connecting him with others have no meaning. The placement of circles--near the center or near the edge of the page--and the length of connecting lines--very long or extremely short--were decisions about display made by the draftsman whose sole concern was with the clearest possible depiction of whatever links existed. Accordingly, in reading a chart attention should be directed to the ways in which the circles are connected, not to their position on the page.

Before turning to our discussion of the four illustrative charts we would like to emphasize again that *no one but the individual concerned* knows which circle is his on the diagram. All coding and decoding was controlled and carefully checked in our office by a highly trained statistical clerk to insure that the confidentiality of your identity would--as we promised you--be completely maintained.*

The diagram for School 177 illustrates a pattern in which communication about guidance and counseling among the faculty as a whole was comparatively light. No groupings of faculty members occurred other than the two small 3-4-7 and 7-8-9 triangles. It is interesting to note that this school showed comparitively little agreement on the counselor's role, as can be seen in Table I of Section II. The network diagram shows that five persons are central in the communication structure, and it may be that these individuals have the chief influence upon guidance policies, regardless of differing opinions existing elsewhere in the faculty.

School 526 is approximately the same size as School 177, but in contrast to the latter shows a much broader spread of communication throughout the faculty. All of the respondents to our questionnaires in School 526 turned out to be above the cutting point of one conversation per week, and most of the persons were connected to *more* than two others; indeed, Person 8 was connected to fourteen others. Furthermore, two groups of four persons appeared in which every person was connected to every other. One of these groups was composed of Persons 7, 8, 11, and 15; the other of Persons 8, 12, 15, and 16. As Table I shows, this school was much higher on the consensus list than was School 177.

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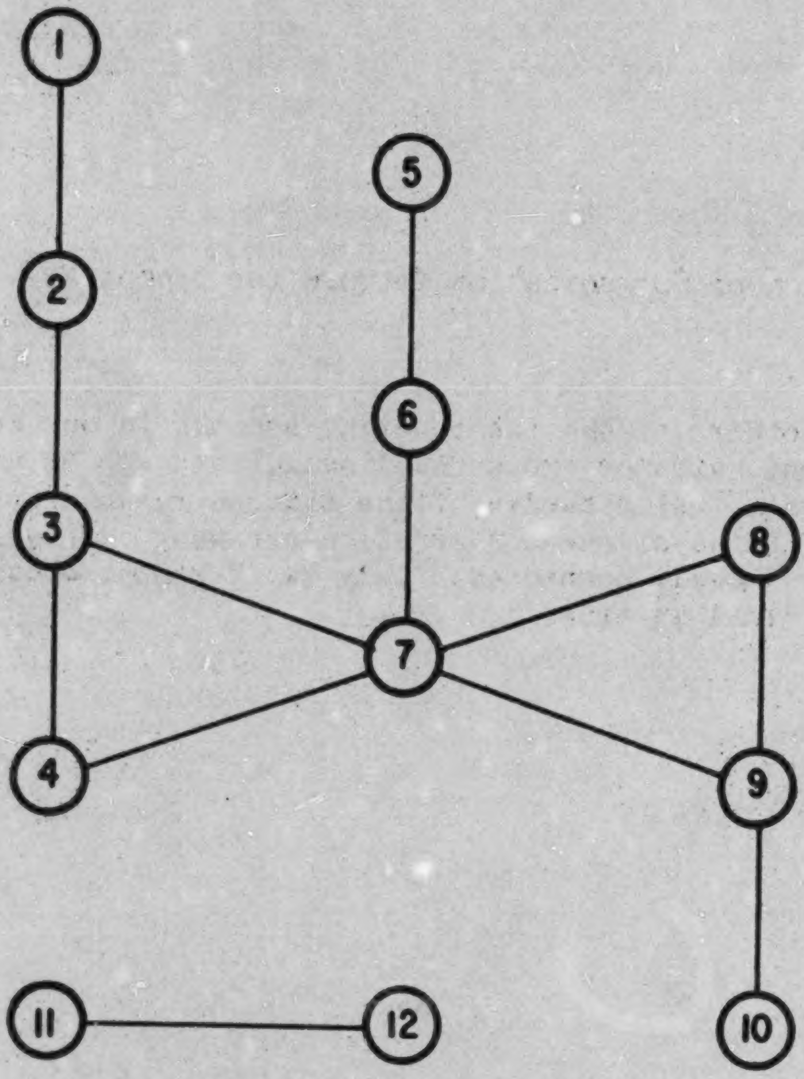
* Even the authors of this report, though bound by professional ethics in any case, have refrained from following personal identities through the data.

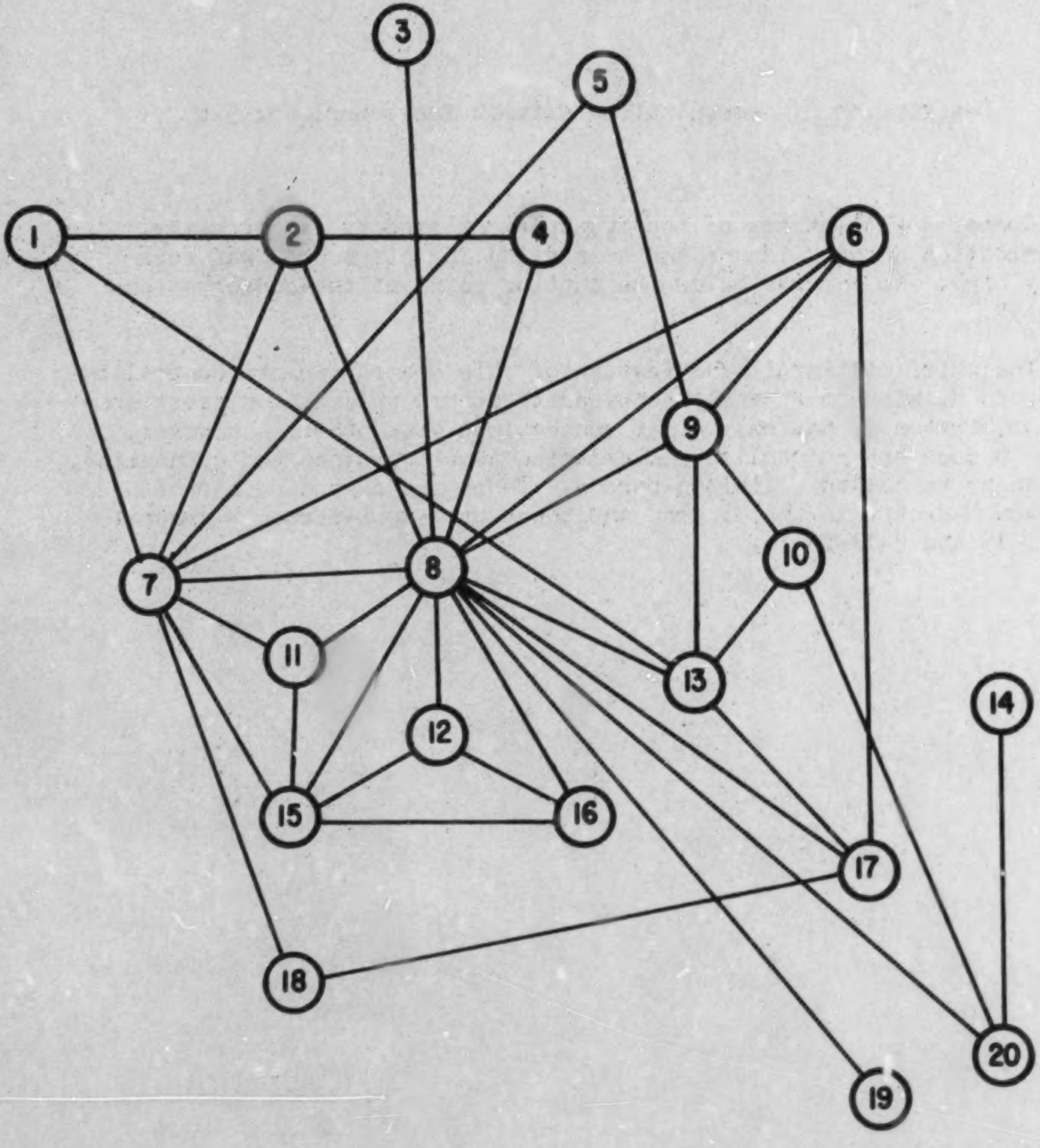


4 PERSONS WERE BELOW ONE CONVERSATION PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 177
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59

Description of Communication Network for School No. 177

Compared to others of the twenty-eight schools in our study, communication about guidance and counseling in this school was comparatively light. While twelve of the sixteen respondents were above the cutting point of one-conversation-per-week the twelve persons were very loosely connected. Only two M-groups occurred and these were minimal in size.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CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 526
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59

Description of Communication Network for School No. 526

Compared with others of the twenty-eight schools in our study, communication about guidance and counseling in this school was relatively high. No one was below the cutting point of one-conversation-per-week.

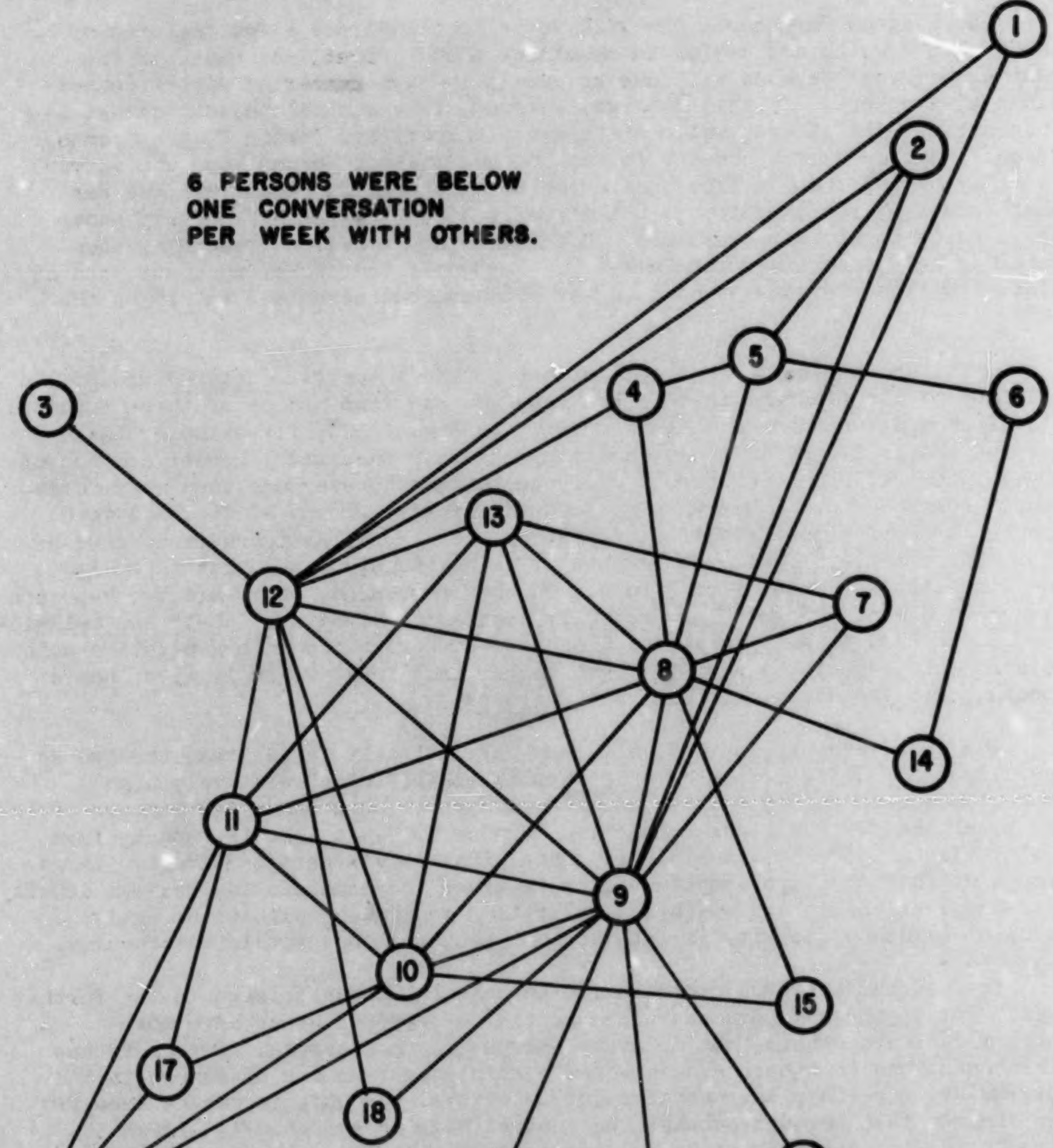
The chief distinguishing feature of this diagram is the centrality of Person 8, with fourteen connections to others while his nearest competitor, Person 7, has only eight connections with others. However, Person 8 does not monopolize conversation about guidance and counseling, nor can he be called a liaison person. There are a good number of 3-person M-groups in the diagram and there are two 4-person M-groups: 7-8-11-15 and 8-12-15-16.

The diagram for School 526 will serve to illustrate a few features of these charts which are useful in examining them. First, one can look for central persons--persons who have an unusually high number of direct connections with others. In this diagram, Person 8 is a central person; he has 14 connections with others, while his nearest competitor, Person 7, has 8 connections. Another useful concept is that of the liaison person--one who serves in relaying information from one person to another. In School 526, we see that Person 5, for example, is not directly connected (at a frequency above the cutting point) with Person 8. Both, however, converse frequently about guidance and counseling with Person 7. Person 7, therefore, no doupt acts as liaison between Persons 5 and 8 on the one hand and persons 2 and 18 on the other.

Still another useful concept is that of the mutually-connected group. In all four of the diagrams in this booklet, you can find groups of three persons, all of whom are connected to each other. In School 526, for example, there are the groups 2-4-8, 12-15-16, and many others. Such small groups are not of great interest, since you expect everyone to talk to everyone when only three people come together. But when you consider larger groups of four and more people it becomes more significant whether everyone talks to everyone else or not. For example, looking at Persons 6, 7, 8, and 9, we see that there is one link missing: that from 7 to 9. On the other hand, there are two 4-person groups in School 526 which are mutually connected. They are 7-8-15 and 8-12-15-16. Since such densely connected groups are important in an organization such as a school, especially when they get larger than four, we shall give them a special name and hereafter call them M-groups.

The third school, No. 188, although only slightly larger than the two so far discussed, differs from both of them in exhibiting a relatively high concentration of guidance-and-counseling conversation among a few members of the total staff. The lines connecting Persons 8, 9, 10, 11, 12, and 13 form a star-like cluster of mutual inter-connections; a six-person M-group. Large groups of this type are important because since they contain the maximum density of communication-linkage which can exist they generally indicate an active focus of guidance activity (or at least of conversation) within the faculty.

The concentration of conversation in School 188 can be seen in two further ways. First, the six persons in the central 6-person M-group have more connections with others than do other persons in the diagram. Person 13 has six connections to others and Person 9 has thirteen; no one elsewhere in the diagram has more than four connections to others. Second, it can be seen from the diagram that persons outside the central M-group are chiefly linked to persons in the central M-group and comparatively infrequently to each other. The conclusion seems inescapable that communication about guidance and counseling in this school goes out from the central M-group, and comes back to it, with very little communication taking place outside it. The paucity of links which do not involve members of the central M-group argues that the communication going out from it becomes weaker and weaker (i.e., is relayed less frequently) as it passes through the farther links--note that six out of the 27 respondents were in fact below the cutting point in frequency of conversation.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6 PERSONS WERE BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 188
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59

Description of Communication Network for School No. 188

Compared to others of the twenty-eight schools in our study, the general level of communication about guidance and counseling in this school was near the average. This school stands out from others, however, in having an exceptionally large proportion of its communication about guidance and counseling centered in a few people.

Near the center of the diagram six persons can be seen arranged in a circle. These six persons constitute a single 6-person M-group: 8-9-10-11-12-13. There are also in this diagram three 4-person M-groups, every one of which contains two or three persons who are members of the central 6-person M-group: 7-8-9-13, 9-10-11-16, and 10-11-16-17.

The person having the largest number of connections with others was Person 9, with thirteen such connections. This was more than four times as many as the number which the average person among the twenty-seven respondents had with others. Every person in the central M-group had at least six connections with others, while four was the largest number of connections shown by anyone else. Six persons out of the twenty-seven respondents had no connections at all above the cutting point of one-conversation-per-week.

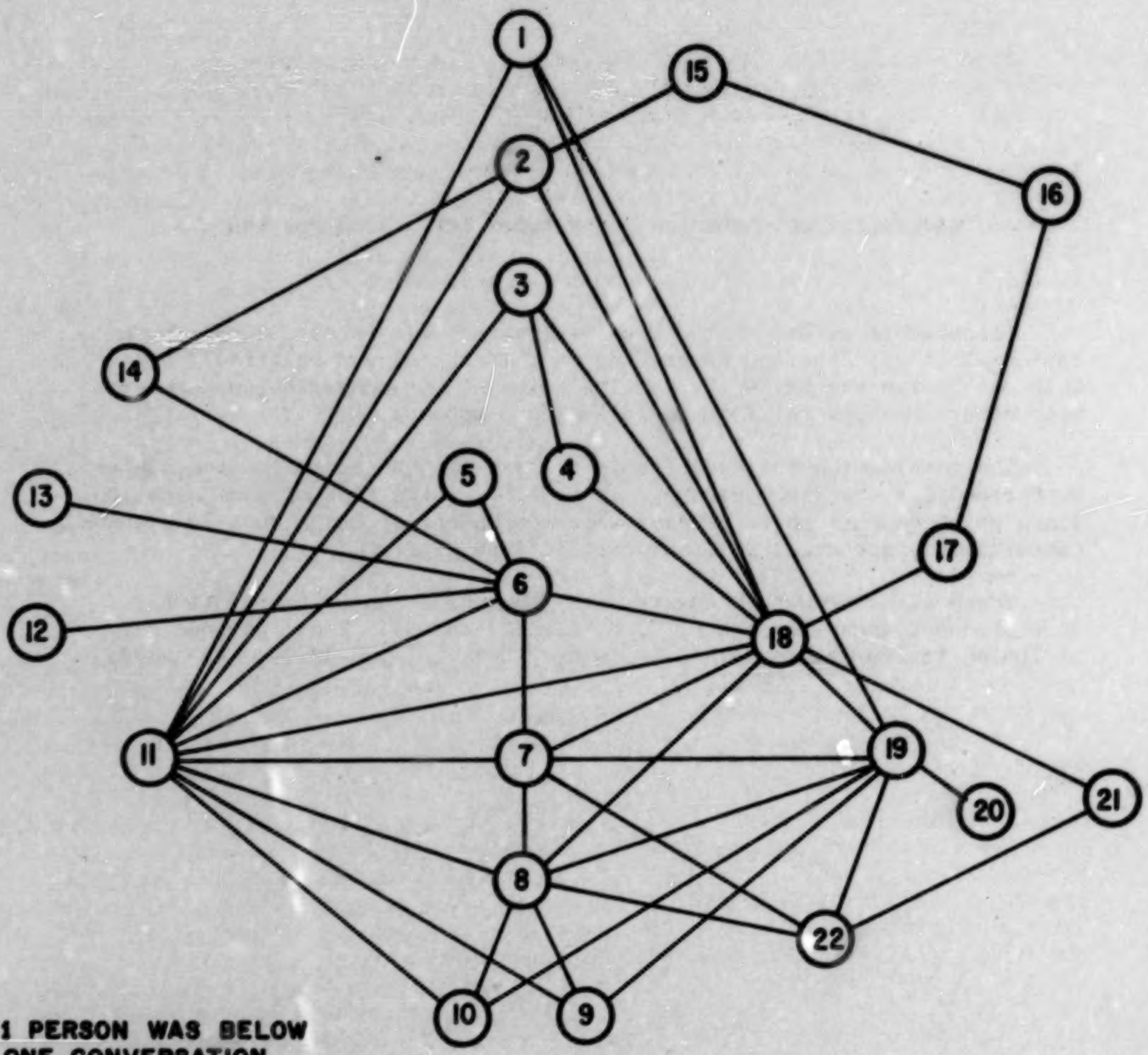
This school, with its high concentration of communication in a relatively small part of its faculty, fell at the bottom of the list in Table I, indicating that it had one of the highest rates of divided faculty opinion of any of the 28. This could mean that members of the central M-group were in the process of re-defining the counseling role and that other members of the faculty were in a state of confusion regarding what was and was not appropriate for the counselor to do. On the other hand, it could indicate a split between "old" and a "new guard." In fact, a great many hypotheses as to cause and meaning are aroused by these and the preceding data, hypotheses which can be tested only through more intensive analyses than we have as yet had time to perform.

Our fourth chart, School 484, although exhibiting about as much conversation generally as did Schools 526 and 188, presents still a different picture. Two individuals, Persons 11 and 18, stand out as central. Most of the remaining persons in the network talked frequently to one or both of these two persons, with comparatively few communication links existing elsewhere. The M-groups which occurred were small; there were four 4-person M-groups, of which three included at least one of the two central persons: 6-7-11-18, 7-8-11-18, 7-8-18-19, and 7-8-19-22. Person 19 seems to have been something of a subsidiary center.

What lies behind this pattern in School 484? Was it that Persons 11 and 18 "gave out the word?" Or was it that the staff was so thoroughly aware of guidance functions that only "business" brought them into contact with others? We obviously do not know, and we engage in these more or less wild hypotheses for the sheer fun of conjecturing.

But what is the "good" communication pattern for a school, in regard to this special area of guidance and counseling? Certainly, there is no certain pattern which is best for all schools. One cannot even succeed in simplifying this question by finding a school which has a maximally effective guidance program, and cry, "Eureka! I have found the best pattern!" Many guidance programs with high effectiveness may be served by very different communication patterns. The most effective pattern in any particular school must certainly depend on the size of school, the number of counselors, the particular duties given to teachers the division of duties among counselors, and many other factors. It is quite possible, for example, that School 177 with its minimum communication pattern conducts a highly effective program with a de-centralized organization, perhaps through the judicious use of home-room teachers. In School 188, the dense 6-person M-group might be actively collaborating in a very efficient guidance program. Persons 11 and 18 in School 484 might be doing likewise.

The interesting sidelights we drew into the discussion from Table I might have very little to do with the impact of the guidance program on the student, who is, after all, the raison d'étre for any guidance program. And in regard to individuals in the diagrams, we should be the first to admit that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1 PERSON WAS BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 484
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr - si FALL '59

Description of Communication Network for School No. 484

Compared to others of the twenty-eight schools in our study, communication about guidance and counseling in this school was relatively high. Only one person was below the cutting point of one-conversation-per-week with others and several fair-sized M-groups appear.

The interesting feature of this diagram is that communication centers rather heavily upon two persons: 11 and 18. Large fans of communication links go to each of these persons with communication being much less dense, comparatively speaking, in other parts of the diagram.

There was a tendency, however, for communication to be relatively more frequent among Persons 6, 7, 8, 11, 18, and 19. These persons participated in four M-groups: 6-7-11-18, 7-8-11-18, 7-8-18-19, 7-8-19-22.

one is not necessarily a better teacher if he is a center of communication about guidance and counseling: it is conceivable that he might in fact be a poorer one.

This section of our report has presented a kind of information not often available. Our various guesses as to possible explanations for the patterns were purely guesses, inserted as illustrations of thoughts which might occur to you as you look at the chart for your school. We shall be gratified if these charts help you to think about possibilities in your own work which might not otherwise have seemed profitable to think about.

Section IV

FACULTY COMMUNICATION AND TEST KNOWLEDGE

Our interest in patterns of communication in the area of guidance and counseling led quite naturally to a study of communication in the area of tests and testing. We possessed a measure of "amount of conversation about tests" in the form of faculty responses to the following questionnaire item:

> In talking with other teachers about students, do you discuss the results of standardized tests with them?
> Frequently ___ Sometimes ___ Rarely ___ Never ___

In addition to this we had data on (1) faculty members' knowledge about tests and the technicalities of testing, and (2) faculty members' training in the technicalities of testing. Test knowledge data were in the form of scores on the multiple-choice test each of you took in the fall of 1959; test training data were in the form of the number of college courses each of you had taken in the general area of tests and measurement.

We first hypothesized that teachers with more knowledge and training (i.e., higher test scores and more courses in testing) would discuss the results of standardized tests with other teachers more frequently than would teachers with less knowledge and training. Our reasoning here was very simple; namely, people tend to talk about the things they know about. And, as Table X shows, our hypothesis was substantiated both for knowledge and for training.

The data in Table X, although interesting, deal with indiscriminate "groups" of teachers and tell us nothing about what is happening in individual schools. Having found rather sizeable differences among schools on most of our other variables, we decided to pursue similar analyses on one of the present variables; namely, test knowledge.

One of our first questions was whether knowledge about tests was rather evenly distributed over school faculties or whether the latter showed marked differences among themselves. The answer to this question is found in Table XI, where the frequency distributions of test knowledge scores are provided for each school. In this table, schools are ordered on mean test knowledge scores, the first school having the highest mean and the last school the lowest.

Table X Percentage of faculty who discuss tests with other staff members, as related to Test Knowledge and to Training in Testing: data from fall 1959.

	Amount of Knowledge					Amount of Training			
	Test results are discussed:					Test results are discussed:			
Test Scores	Never or Rarely	Sometimes or Frequently	Total	N	Testing Courses	Never or Rarely	Sometimes or Frequently	Total	N
36-54	28	72	100	135	3-4	21	79	100	133
26-35	40	60	100	245	2	21	79	100	129
10-25	52	48	100	130	0-1	50	50	100	302
Total	40	60		510		36	64		564

Chi-square = 16.2 $p < .001$

Chi-square = 49.7 $p < .001$

The data in Table XI provide two interesting bits of information. First, the mean level of test knowledge among schools is strikingly different--ranging from 41.4 to 25.9 on a test having a possible score range from zero to 60. Second--and more important--marked variability exists in every school; in fact many of the schools with quite low mean test knowledge scores have faculty members whose individual test scores exceed the scores of some teachers in schools with much higher means.

Our hypothesis about the relationship between test knowledge and test discussion, having been substantiated by the data in Table X, led to the corollary hypothesis that discussion would be greater in schools having high mean levels of knowledge than it would in schools having lower levels. To simplify the testing of this hypothesis we divided schools into High, Average, and Low groups on the basis of mean test knowledge score and examined the amount of discussion reported by faculty members in each group of schools. These data are presented in Table XII and, as expected, our corollary hypothesis was also substantiated.

Table XI Distributions of Test Knowledge Scores for all Staff Members in Each of the 28 Schools.

Score	531	117	601	018	280	153	257	091	603	602	281	526	484	488
50-54						1	1		1					
45-49	5	2	2	2	2	3	2	2		2	2			
40-44	6	3	2	11	4		3	2	2	2	1	3	1	1
35-39	3	6	6	6	4	2	17	7	1		2	3	3	6
30-34	2	5	3	6	4	7	18	3	5	4	1	2	6	6
25-29		4	7	5	7		15	6	3	3	5	2	4	2
20-24				4		5	7	4	3	1	1	3	2	3
15-19				1	2	1		1		2	2	1		
10-14				1							1			1
5-9														
0-4														
Mean	41.4	35.5	34.3	33.9	33.1	32.5	32.3	32.0	32.0	31.6	31.3	31.3	31.1	30.9

Score	274	415	495	177	600	430	538	463	301	188	264	244	604	343
50-54	1													
45-49	1					1		1	1	1				
40-44	1		1	2		1	1		2	1	1	1		
35-39	2	2	7	3	3	4	1	1	1	1	2	4	1	
30-34	3	7	4	2	5	10	5	5	6	4	5	4	1	6
25-29	5	3	7	4	2	4	6	3	4	7	4	2	4	2
20-24	3	2	4	3	1	6	2	1	1	4	6	6	2	4
15-19			1	1		2		2	1	1		2	1	1
10-14	1				1				1					1
5-9														
0-4									1					
Mean	30.8	30.2	30.1	30.0	29.9	29.7	29.7	29.3	28.9	28.8	28.7	28.3	26.4	25.9

Table XII Percentage of faculty who discuss test results with other staff members in schools having high, average, and low mean knowledge scores: fall 1959 data.

School Group	School Mean Test Score	Test results are discussed: Never or Rarely	Sometimes or Frequently	Total	N
High (9 schools)	32.0 - 41.4	30	70	100	227
Average (10 schools)	29.9 - 31.9	48	52	100	145
Low (9 schools)	25.9 - 29.3	48	52	100	138
	Total	40	60	—	510

Chi-square= 17.4 $p<.001$

The above three tables apparently do no more than support "common sense conclusions." That is, (1) individuals differ widely in amount of knowledge, and (2) individuals who possess greater knowledge tend to discuss topics specifically related to their area of competence more frequently than do individuals who possess less knowledge. These findings--in and of themselves--are hardly noteworthy.

However, when we tested for the stability of our results overtime (i.e. from fall, 1959 to spring, 1960), we came up with an interesting finding. In the Fall of 1959--our first period of data collection--the difference among schools in "amount of discussion about test results" was highly significant. Seven months later when we revisited all 28 schools we again asked the same question, "How frequently do you discuss test results with other teachers", and found that the highly significant difference which obtained in the Fall of 1959 had completely disappeared. These results are presented in Table XIII.

Table XIII Percentage of faculty who discussed test results with other staff members in schools having high, average, and low mean test knowledge scores at two different points in time: fall 1959 and spring 1960.

Fall 1959

School Group	School Mean Test Score	Test results are discussed: Never or Rarely	Sometimes or Frequently	Total	N
High	32.0 - 41.4	30	70	100	227
Average	29.9 - 31.9	48	52	100	145
Low	25.9 - 29.3	48	52	100	138
	Total	40	60		510

Chi-square = 17.4 $p < .001$

Spring 1960

School Group	School Mean Test Score	Test results are discussed: Never or Rarely	Sometimes or Frequently	Total	N
High	32.0 - 41.4	32	68	100	225
Average	29.9 - 31.9	38	62	100	140
Low	25.9 - 29.3	39	61	100	140
	Total	35	65		505

Chi-square = 2.1, not significant.

The data in Table XIII indicate that at the start of our study the amount of discussion which occurred among faculties in these 28 schools was clearly related to teachers' knowledge about this special area, but that seven months later the "knowledge relationship" had been almost eradicated.

There is some evidence in Table XIII that the difference between fall 1959 and spring 1960 was due to increased discussion involving teachers who previously had conversed little about test results. First, there is a general increase in "sometimes" and "frequently" answers from 60 percent in the fall to 65 percent in the spring. Further, all of this increase occurs in schools having average and low test knowledge means. It is possible that these findings are a pure "Hawthorne effect" which will evaporate immediately following the cessation of our research. On the other hand, it might be possible that this upsurge in discussion stems from a less transitory interest. Certainly our results in Section II showing teachers' "demand for knowledge" lend some support to the latter interpretation.

Section V

SUMMARY

In this second report to the persons in 28 junior and senior high schools in Illinois who participated in the Summer Institute Follow-Up Study, we have presented results which (1) cast light upon the role prescription within which school counselors work, (2) show some patterns of communication within schools in the guidance and counseling area, and (3) point up some relations between knowledge about testing and communication with other faculty members concerning test results.

The Counselor's Role

In regard to 39 duties which a counselor might perform, the faculty of no school was in agreement about the appropriateness of every duty, and some schools were in disagreement over as many as 14 of them. Comparing the opinions of faculties from one school to another, there was only one item which found two-thirds of the faculty in every one of the 28 schools agreeing on its appropriateness; there were only four items on which at least half the faculty in every school agreed.

On the other hand, eight of the 39 items of counselor behavior were agreed upon as appropriate by over two-thirds of the faculty in 23 or more schools out of the 28, and one item received this much agreement on its being inappropriate. These nine items, then, represented the "core" role prescription across schools for the counselors being studied. The items seemed to portray a role for the counselor which emphasizes working directly with individual students, or aiding teachers with individual student cases, and includes reasonable freedom from collateral duties. Duties of the counselor which would make demands on the teacher's time at the behest of someone else were less preferred elements of the role prescription. Each school, of course, had its own "core" role prescription, which typically extended beyond the common one across schools; these individual roles varied greatly from school to school.

The core role as limned by our data seems to be close to that commonly found in textbooks and public addresses. The agreement on it among faculties, however, was far from unanimous, and beyond this core role there were wide differences of opinion on what other duties ought to be part of the complex. This disagreement poses a difficult problem for those who offer training in guidance and counseling, and a difficult problem for counselors who are about to move to a new school.

In many schools, a majority of the faculty felt it desirable for the counselor to do certain things which he was not presently being expected to do. In eleven schools, for example, a majority of the faculty said that the counselor was not being expected to "invite teachers to group meetings to learn more about the aims, techniques, and values of counseling, "but that he ought to do so. In the list of items showing this kind of discrepancy--the "not doing now but ought to" items--the more frequently appearing items were similar in content to the one just quoted. In other words, there was a considerable body of opinion among teachers that the counselor should make a greater effort to help them better to understand and use his counseling services.

Communication Networks

Four charts appear in this booklet showing, for individual schools, which faculty members talked with which others at least once a week about guidance and counseling. When the booklets were sent to participants in the other 24 schools, separate charts for those schools were sent along.

In looking over all 28 charts, the variety of patterns was impressive. Some schools had no persons at all above our arbitrary cutting point of one-conversation-per-week concerning guidance and counseling, and some had very dense communication networks indeed, with almost every participant in the school included.

In some schools, communication centered upon a few highly "central" persons, while in others communication took place in large groups in which everyone was connected to everyone else. In some schools the counselor upon whom our study is chiefly focussed--the Summer Institute participant--was found in the densest part of the communication network, and in others he was located on the fringes or was even below the cutting point. Other counselors also varied in this regard. In almost every school, one or more teachers were found to rival the counselors in the number of conversation-connections they have with others. As might be expected, principals in schools with very few counselors were usually very central in the counseling-and-guidance communication network, while principals with large guidance staffs were often much less central in the network then were the counselors.

Up to this point in our analysis, there are some hints that in the communication patterns were reflected the levels of agreement among faculties concerning the counselor's role, as well as the official organization of guidance services and other factors. We have much research on these matters still in process.

Knowledge About Tests and Conversation About Test Results

Our study of schools' communication networks in the guidance area was supplemented by an analysis of faculty communication in the specific field of testing. In the early stages of our research we found that the amount of discussion which occurred among staff members in this area was a function of the "knowledge-level" of the school. That is, schools whose faculties were generally high in knowledge about tests exhibited more discussion about them than did schools whose faculties had a lower level of knowledge.

When we re-tested this relationship seven months later, we found that this difference among schools had disappeared, indicating an upsurge of test discussion among teachers in the schools with lower test-knowledge means. Whether this finding is merely a transitory "Hawthorne effect," or whether it is a function of a lasting attitudinal change cannot presently be stated. Our findings in Section II, however, coupled with our personal contacts with the counselors, teachers, and administrators in this study lead us to adopt the more optimistic interpretation.

Appendix

DETERMINING THE COMMUNICATION CONNECTIONS IN THE DIAGRAMS

To explain what we meant in Section III by the "equivalent" of one conversation per week about guidance and counseling, let us begin by calling to mind the questionnaire you filled out. You will recall that you were asked how often you had talked to each other person on your faculty. You were also asked, for each person, what proportion of your conversation with him was devoted to matters of guidance and counseling. We took your answers to these two questions and multiplied them together, so to speak. In brief, any of the following combinations of answers wastaken to be equivalent to one or more conversations per week concerning guidance or counseling:

> At least one conversation per week, with "half," "more than half," or "almost all" of the conversation devoted to guidance and counseling.
>
> Conversations almost every day, with not less than "less than half" of the conversation devoted to guidance and counseling.

In this way we determined whether Person A reported the equivalent of one conversation or more per week concerning guidance and counseling with Person B. However, it could occur that Person A reported this level of communication with Person B, but Person B reported less than this level with Person A. In order to make sure that all connections show on the chart were above the cutting point, we counted two persons as connected only if both persons gave responses at or above the level equivalent to one conversation per week.

APPENDIX L

COMMUNICATION NETWORK DIAGRAMS FOR PARTICIPATING SCHOOLS

General Key

In the diagrams for 1959, isolates (persons connected to no one in our sample) are not shown as circles, but are mentioned in a note.

In the diagrams for 1960:

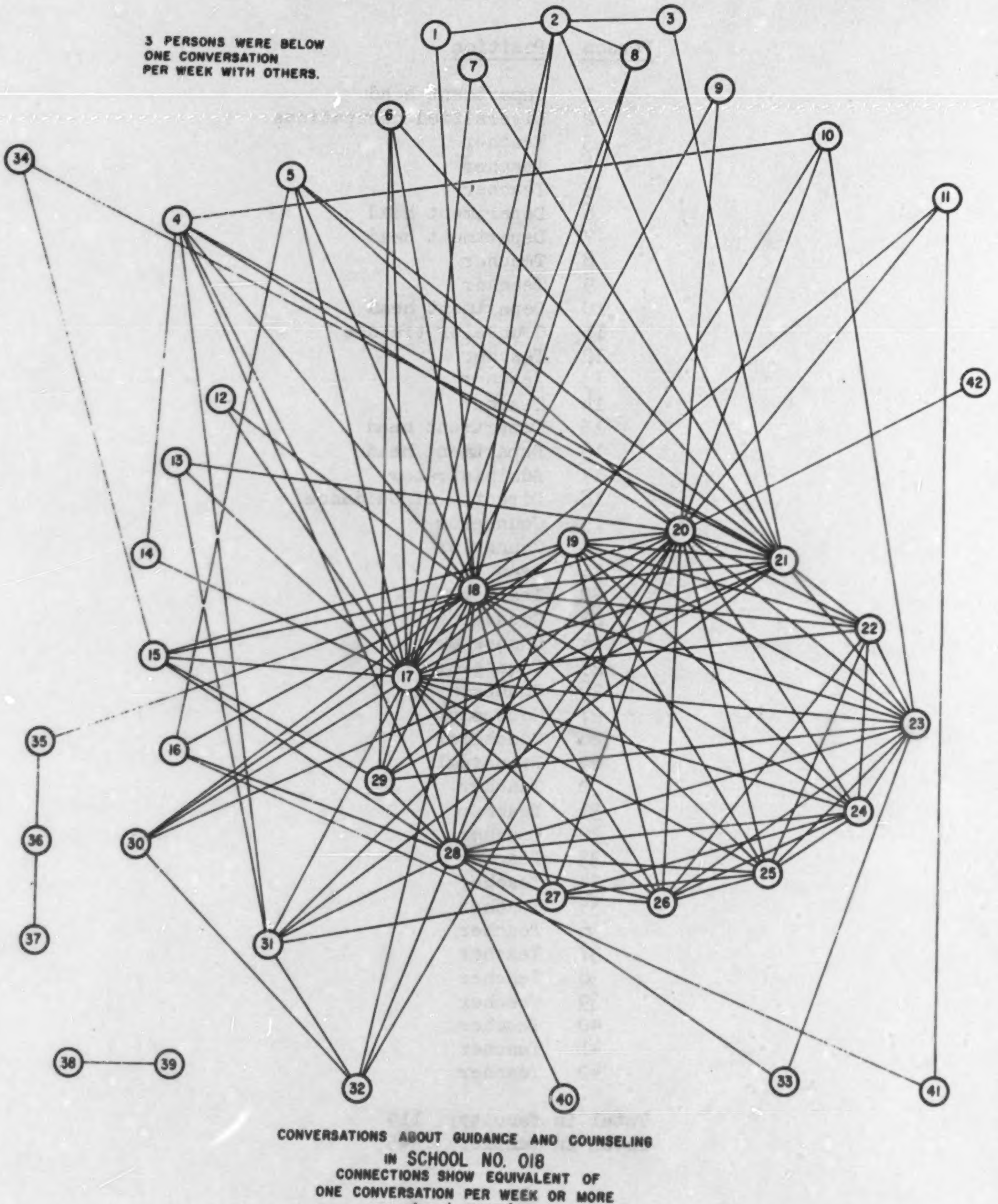
> Circles with no lines coming to them represent persons who were not isolates in our 1959 sample, but were isolates in our 1960 sample. Except for one or two persons, the 1960 sample was the same as the 1959 sample except for persons who dropped out of the study for one or another — mostly because of leaving the school for another job.
>
> Blacked-in circles represent persons who were in the 1959 sample but had dropped out of the study in fall 1960

Information about individual respondents is given with each school.

KEY TO SCHOOL NO. 018

Person	Position
1	Department head
2	Diversified occupations
3	Teacher
4	Teacher
5	Teacher
6	Department head
7	Department head
8	Teacher
9	Teacher
10	Department head
11	Counselor trainee
12	Teacher
13	Teacher
14	Teacher
15	Department head
16	Department head
17	Administrator
18	Director of Guidance
19	Counselor
20	Counselor
21	Dean
22	Teacher
23	Counselor
24	Counselor
25	Counselor
26	Counselor
27	Counselor
28	Counselor
29	Principal
30	Teacher
31	Teacher
32	Teacher
33	Teacher
34	Teacher
35	Teacher
36	Teacher
37	Teacher
38	Teacher
39	Teacher
40	Teacher
41	Teacher
42	Teacher

Total in faculty: 119
Total in sample: 45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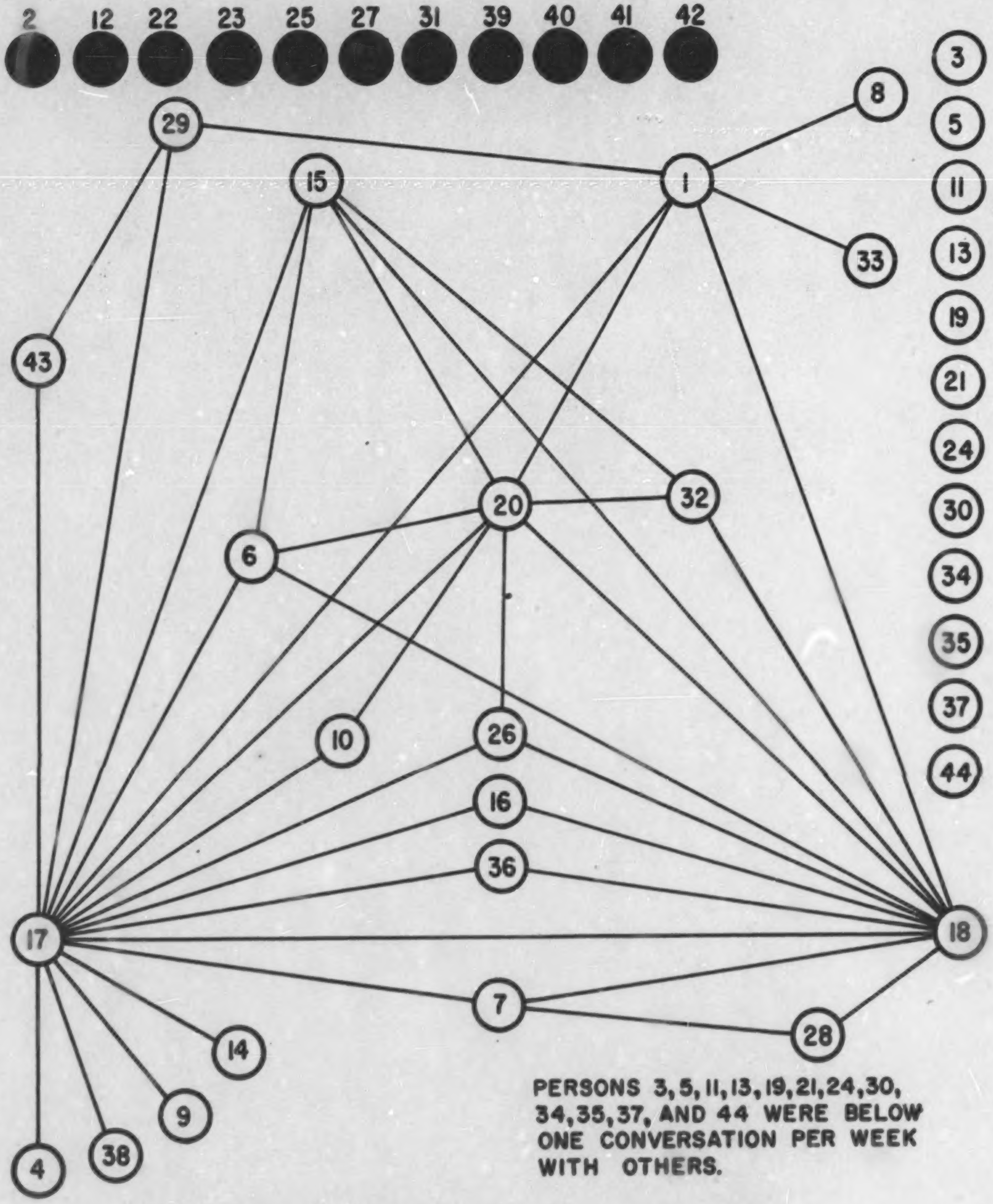
3 PERSONS WERE BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 018
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
ufr-si FALL '59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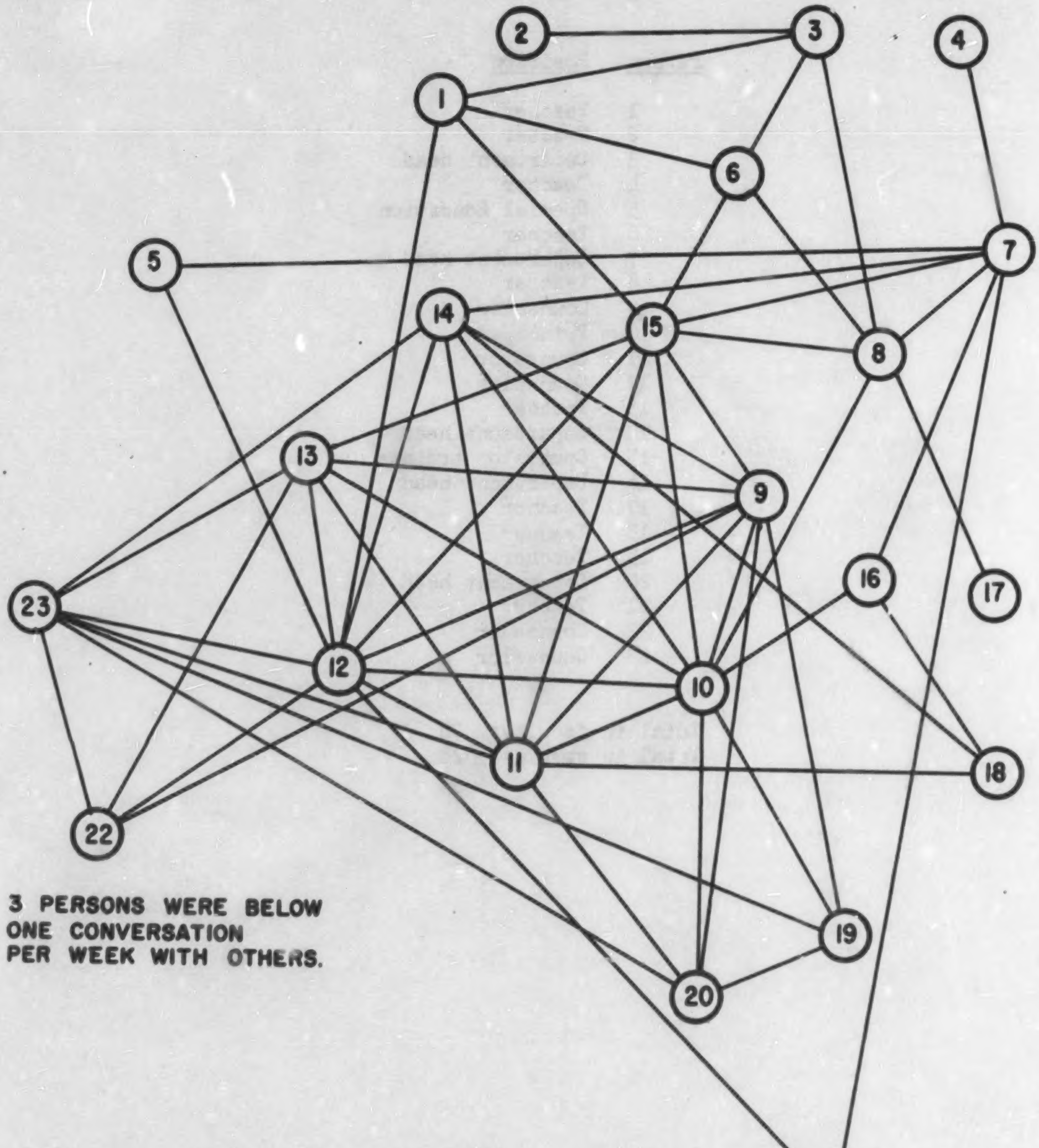
PERSONS 3, 5, 11, 13, 19, 21, 24, 30, 34, 35, 37, AND 44 WERE BELOW ONE CONVERSATION PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 018
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '60

KEY TO SCHOOL NO. 091

Person	Position
1	Teacher
2	Teacher
3	Department head
4	Teacher
5	Special Education
6	Teacher
7	Department head
8	Teacher
9	Counselor
10	Principal
11	Counselor
12	Counselor
13	Teacher
14	Department head
15	Counselor trainee
16	Department head
17	Teacher
18	Teacher
19	Teacher
20	Department head
21	Teacher
22	Counselor
23	Counselor

Total in faculty: 74
Total in sample: 28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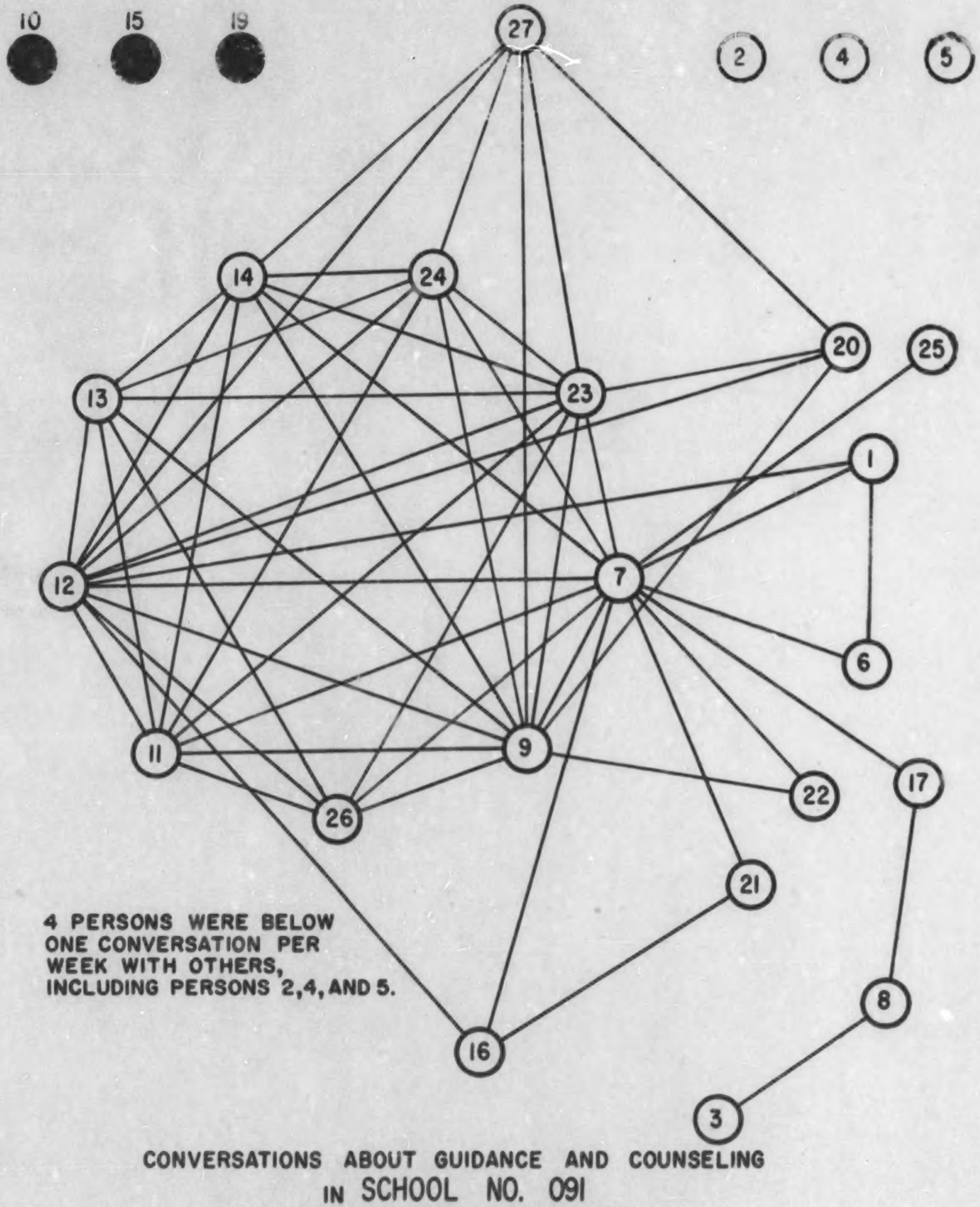
3 PERSONS WERE BELOW ONE CONVERSATION PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 091
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59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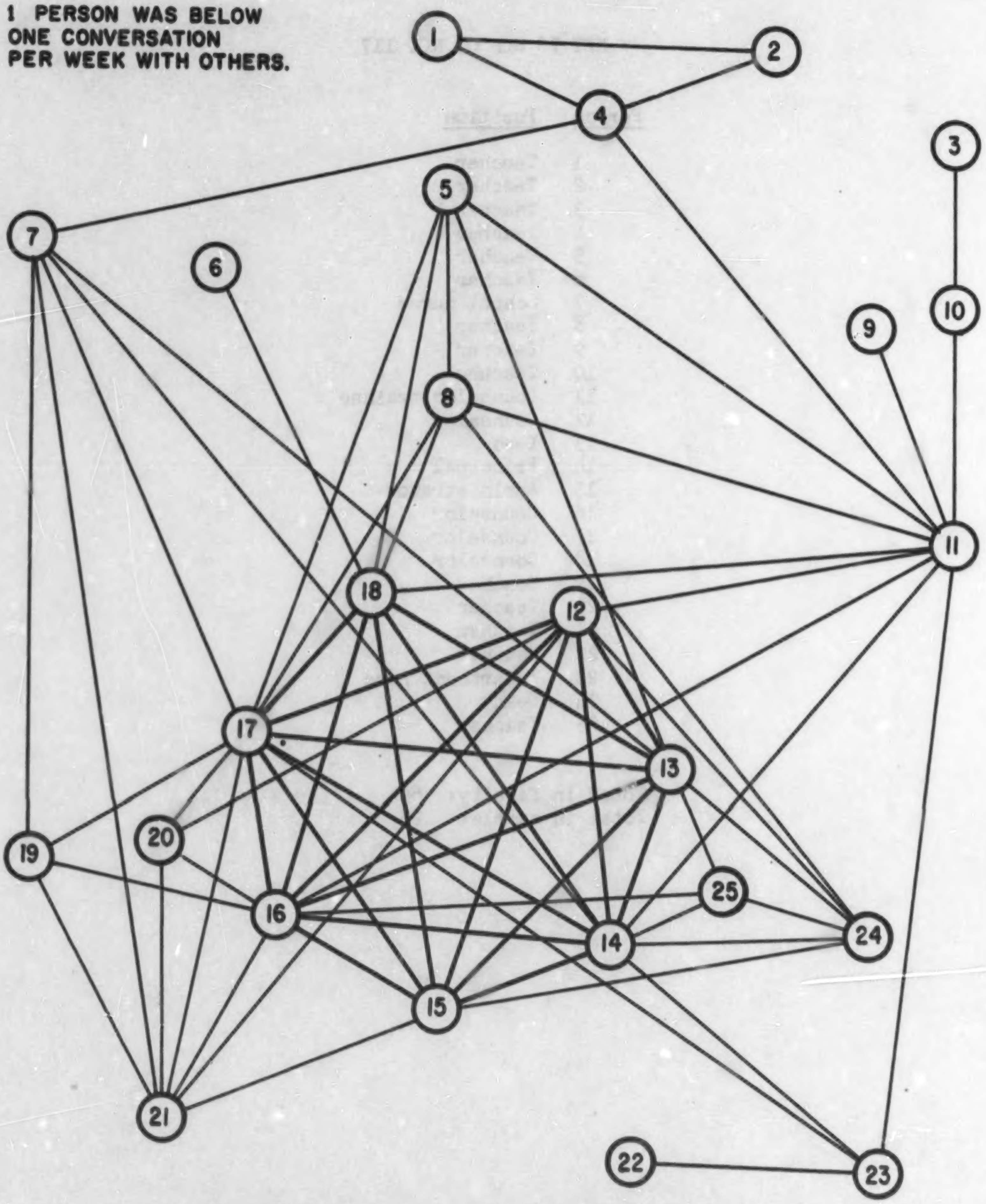
4 PERSONS WERE BELOW ONE CONVERSATION PER WEEK WITH OTHERS, INCLUDING PERSONS 2,4, AND 5.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 091
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr - si FALL '60

KEY TO SCHOOL NO. 117

Person	Position
1	Teacher
2	Teacher
3	Teacher
4	Teacher
5	Teacher
6	Teacher
7	School nurse
8	Teacher
9	Teacher
10	Teacher
11	Counselor trainee
12	Counselor
13	Dean
14	Principal
15	Administrator
16	Counselor
17	Counselor
18	Counselor
19	Teacher
20	Teacher
21	Teacher
22	Teacher
23	Department head
24	Dean
25	Teacher

Total in faculty: 65
Total in sample: 25



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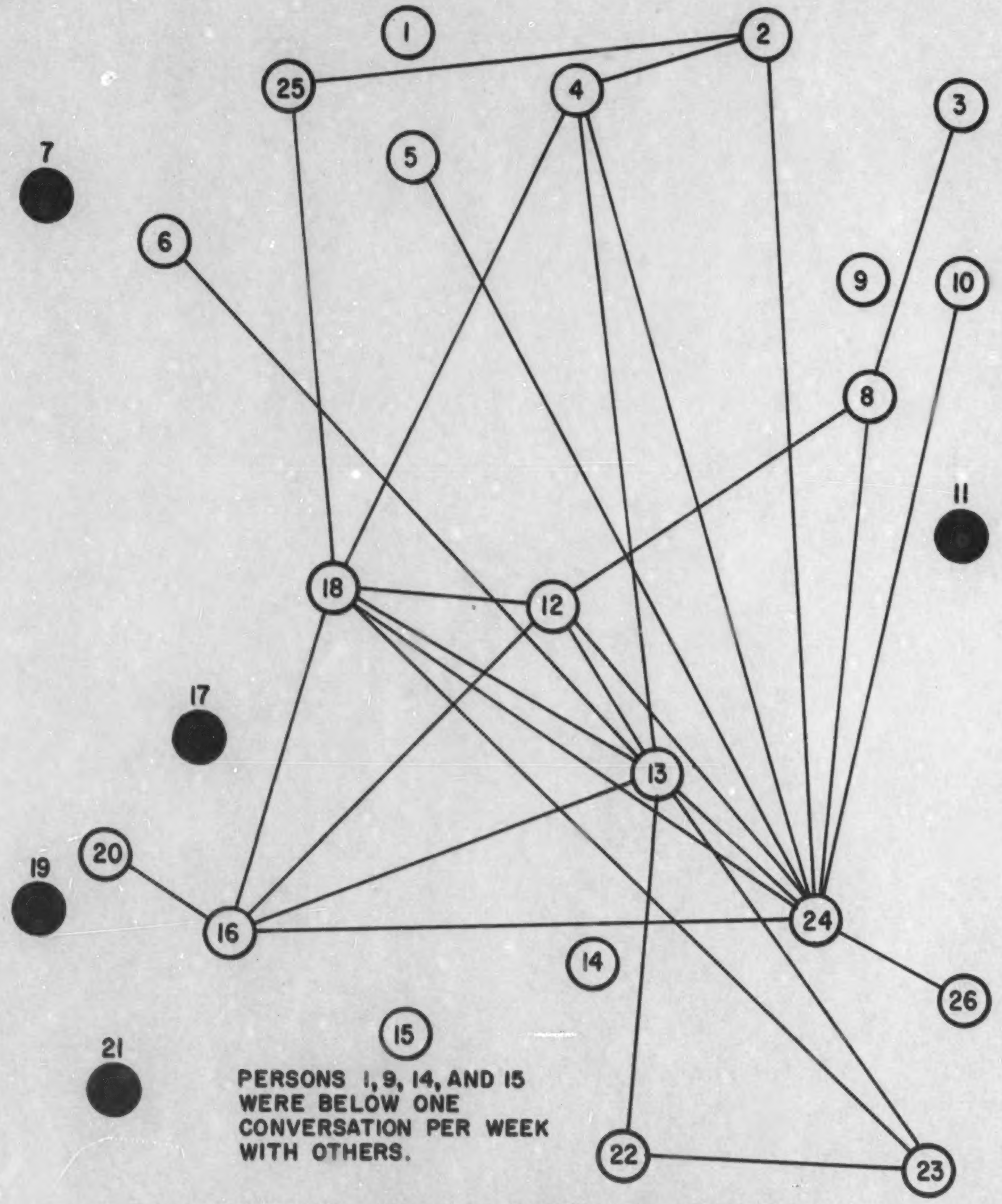
1 PERSON WAS BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 117
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59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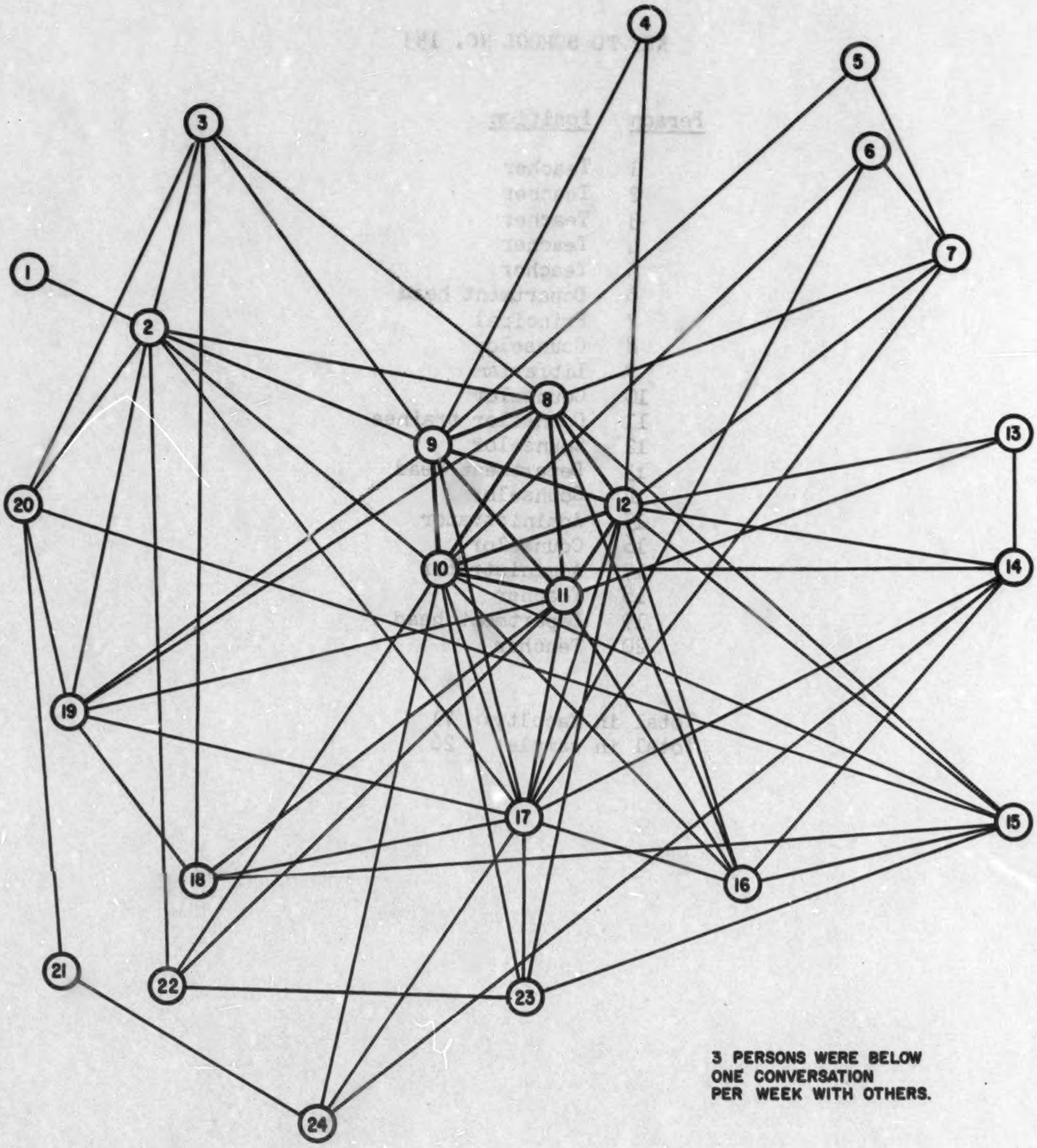
PERSONS 1, 9, 14, AND 15
WERE BELOW ONE
CONVERSATION PER WEEK
WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 117
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '60

KEY TO SCHOOL NO. 153

Person	Position
1	Teacher
2	Teacher
3	Teacher
4	Teacher
5	Teacher
6	Department head
7	Principal
8	Counselor
9	Librarian
10	Counselor
11	Counselor trainee
12	Counselor
13	Department head
14	Counselor
15	Administrator
16	Counselor
17	Administrator
18	Teacher
19	Department head
20	Teacher

Total in faculty: 71
Total in sample: 26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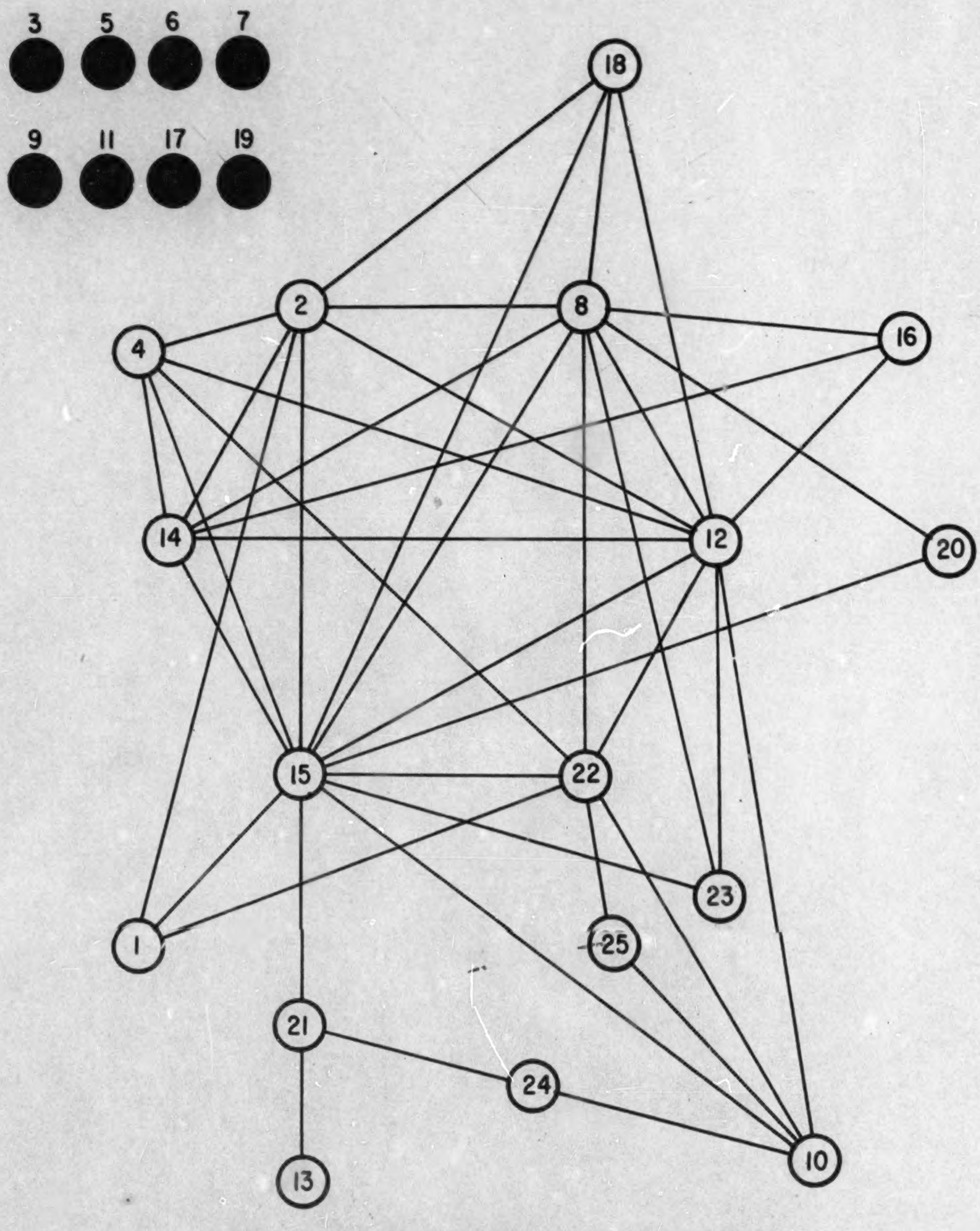
3 PERSONS WERE BELOW ONE CONVERSATION PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 153
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr - si FALL '39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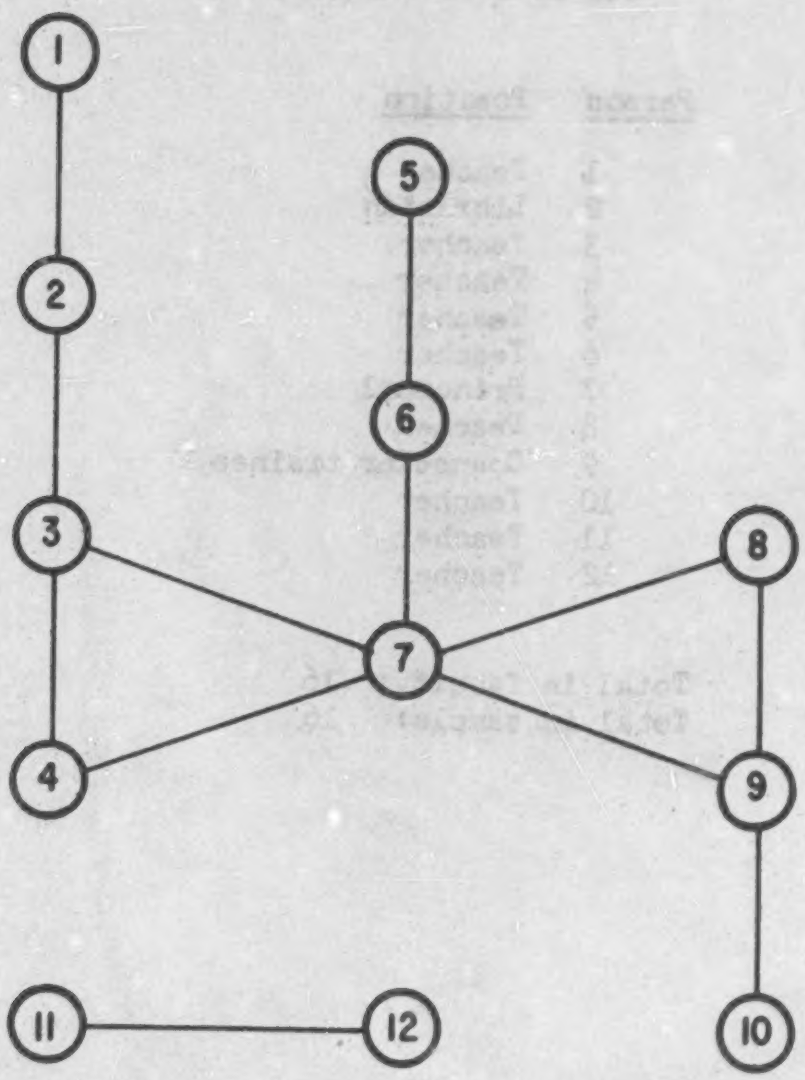
CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 153
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr - si FALL '60

KEY TO SCHOOL NO. 177

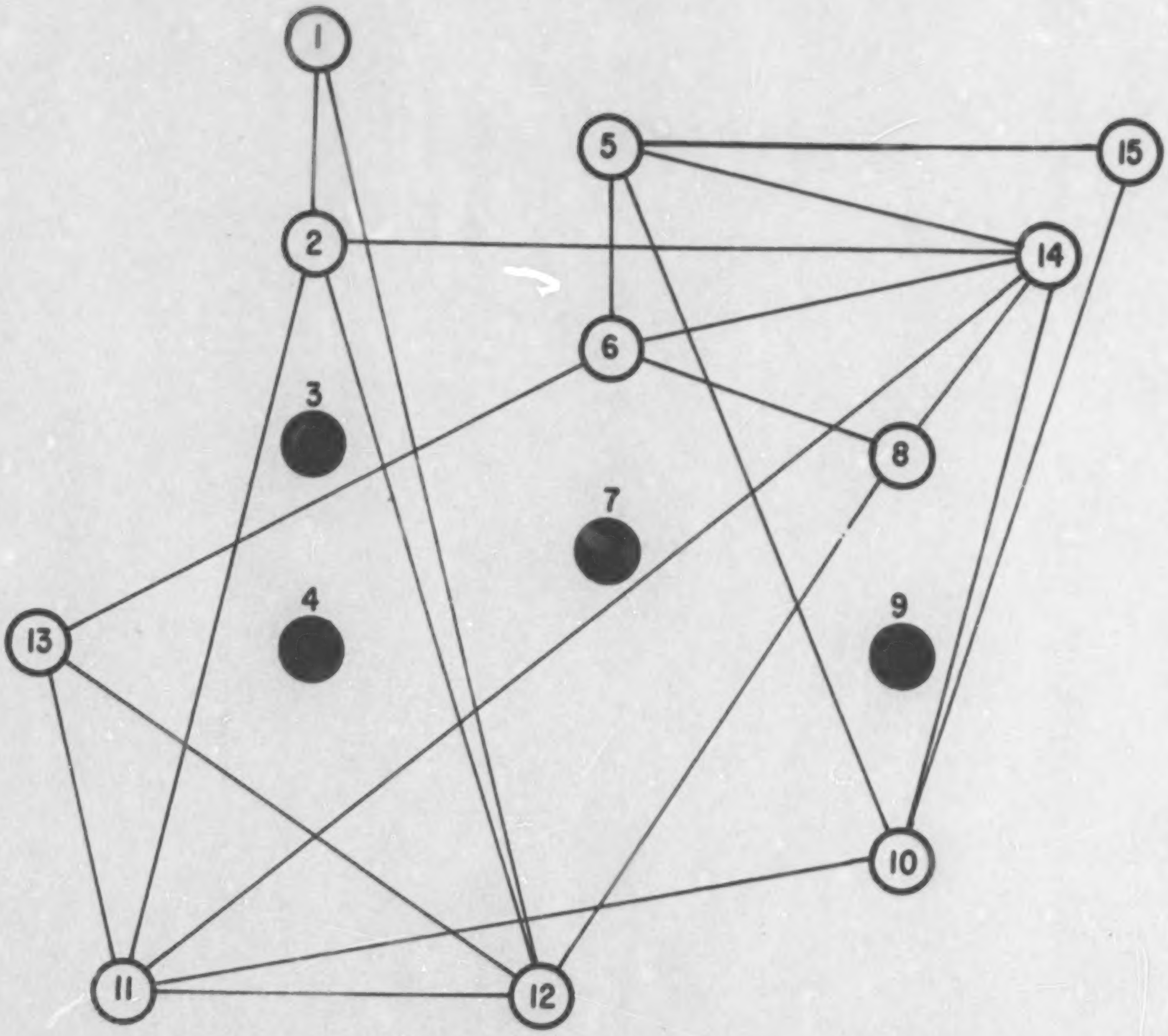
Person	Position
1	Teacher
2	Librarian
3	Teacher
4	Teacher
5	Teacher
6	Teacher
7	Principal
8	Teacher
9	Counselor trainee
10	Teacher
11	Teacher
12	Teacher

Total in faculty: 16
Total in sample: 16



4 PERSONS WERE BELOW ONE CONVERSATION PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 177
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59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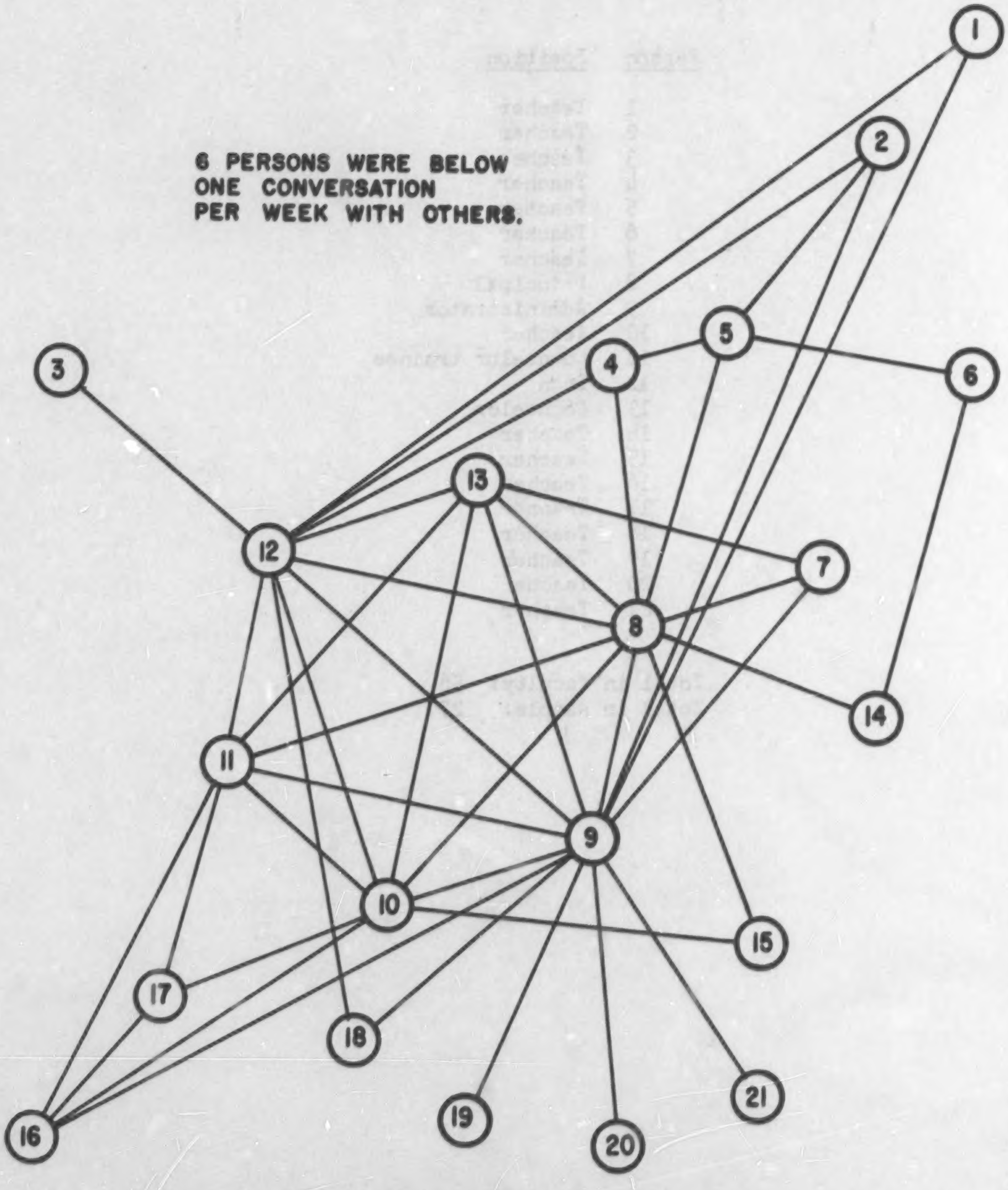
CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 177
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '60

KEY TO SCHOOL NO. 188

Person	Position
1	Teacher
2	Teacher
3	Teacher
4	Teacher
5	Teacher
6	Teacher
7	Teacher
8	Principal
9	Administrator
10	Teacher
11	Counselor trainee
12	Dean
13	Counselor
14	Teacher
15	Teacher
16	Teacher
17	Teacher
18	Teacher
19	Teacher
20	Teacher
21	Teacher

Total in faculty: 56
Total in sample: 27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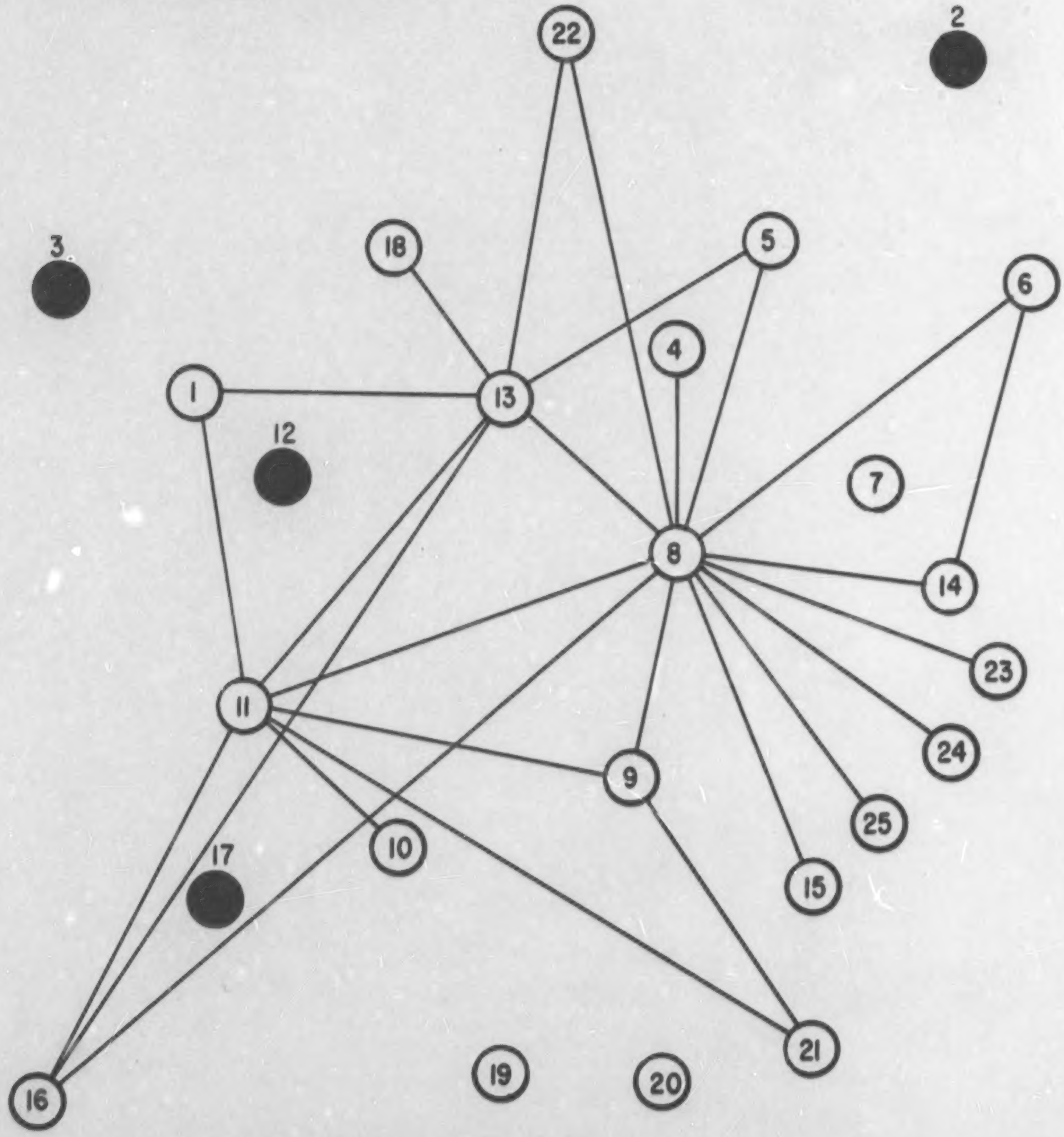
6 PERSONS WERE BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 188
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59

5 PERSONS WERE BELOW ONE CONVERSATION PER WEEK WITH OTHERS, INCLUDING 7, 19, AND 20.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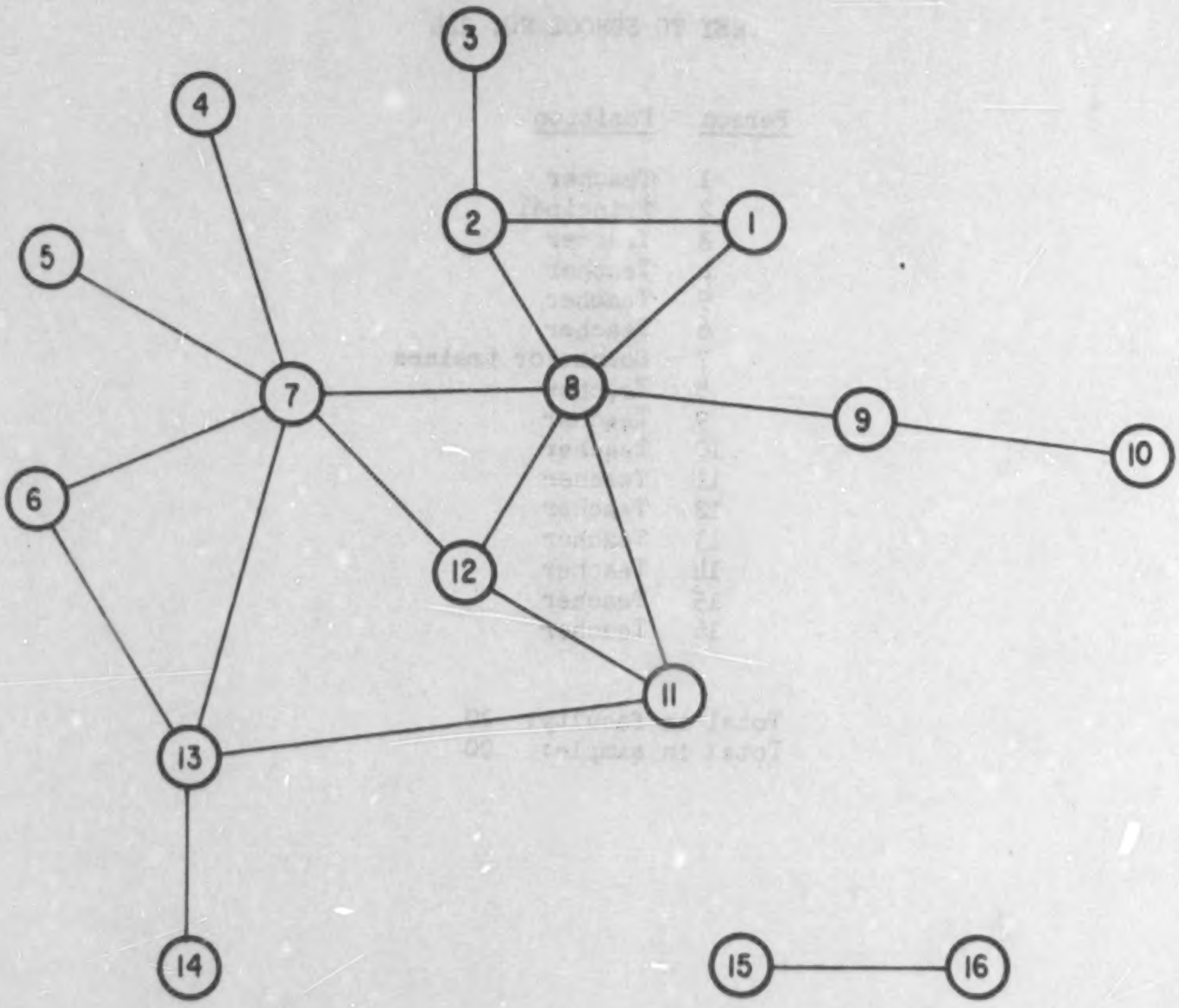
CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 188
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr - si FALL '60

KEY TO SCHOOL NO. 244

Person	Position
1	Teacher
2	Principal
3	Teacher
4	Teacher
5	Teacher
6	Teacher
7	Counselor trainee
8	Teacher
9	Teacher
10	Teacher
11	Teacher
12	Teacher
13	Teacher
14	Teacher
15	Teacher
16	Teacher

Total in faculty: 20
Total in sample: 20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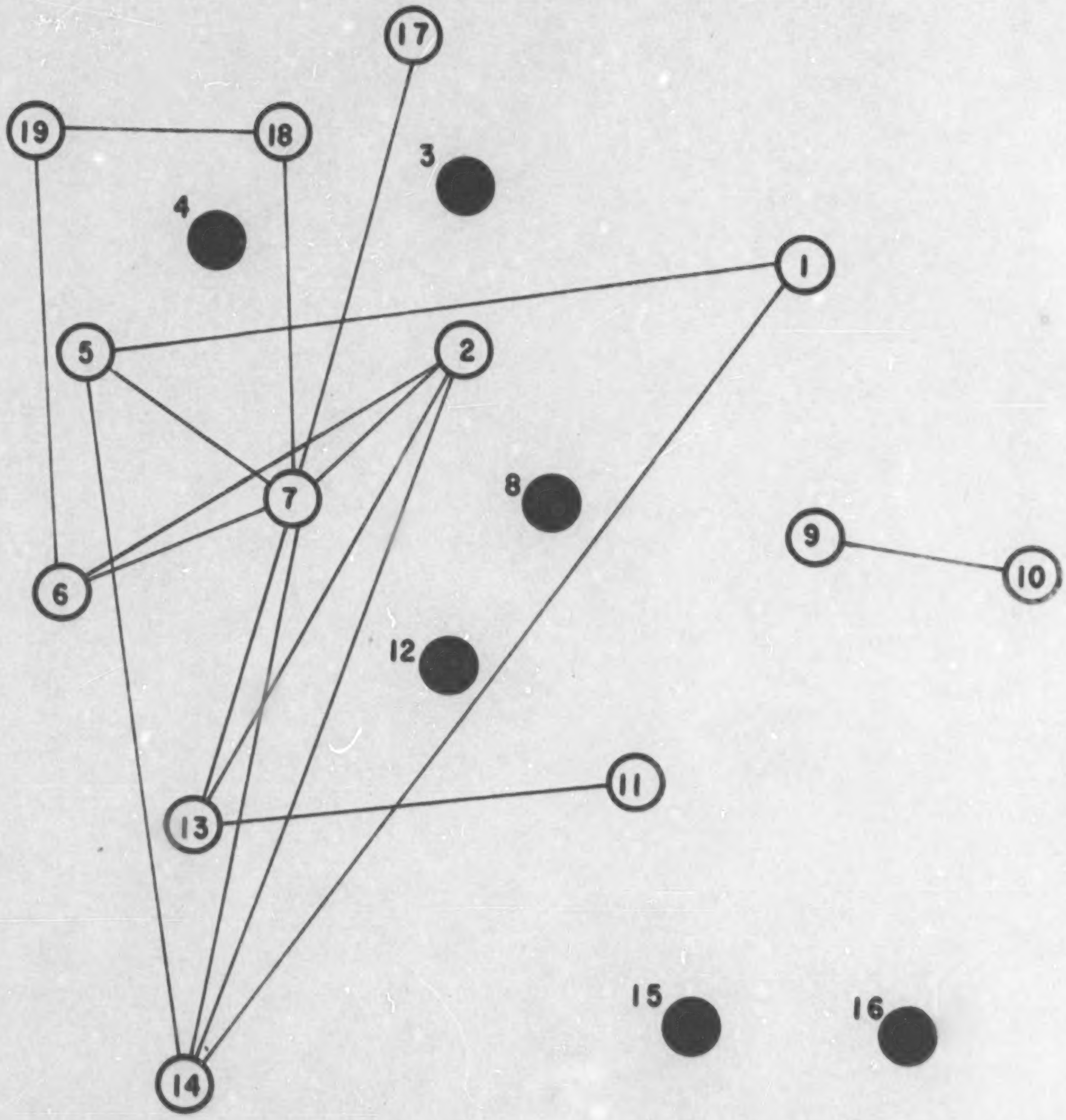
4 PERSONS WERE BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 244
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59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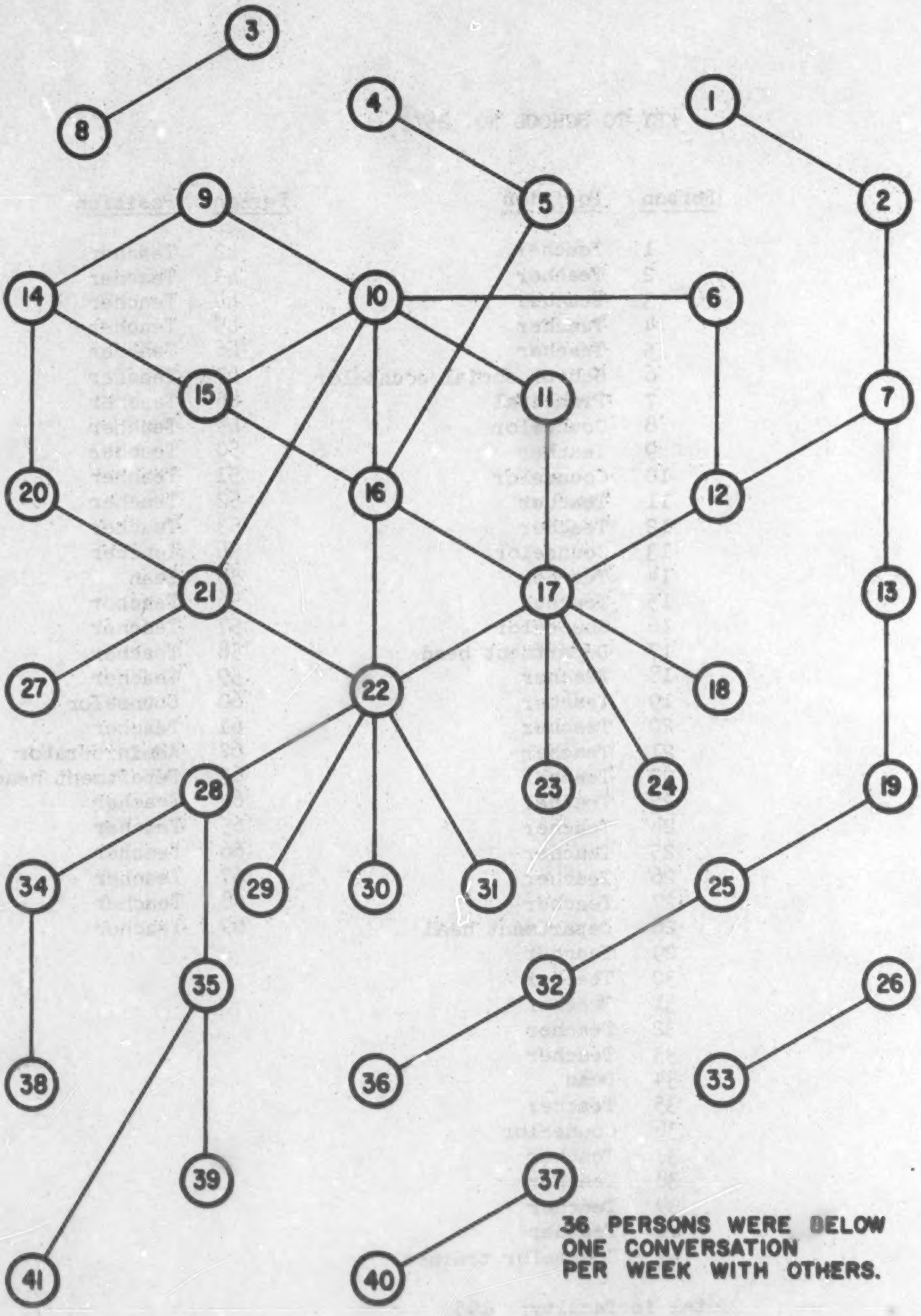
CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 244
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '60

KEY TO SCHOOL NO. 257

Person	Position
1	Teacher
2	Teacher
3	Teacher
4	Teacher
5	Teacher
6	School social counselor
7	Principal
8	Counselor
9	Teacher
10	Counselor
11	Teacher
12	Teacher
13	Counselor
14	Teacher
15	Teacher
16	Counselor
17	Department head
18	Teacher
19	Teacher
20	Teacher
21	Teacher
22	Teacher
23	Teacher
24	Teacher
25	Teacher
26	Teacher
27	Teacher
28	Department head
29	Teacher
30	Teacher
31	Teacher
32	Teacher
33	Teacher
34	Dean
35	Teacher
36	Counselor
37	Teacher
38	Teacher
39	Teacher
40	Teacher
41	Counselor trainee
42	Teacher
43	Teacher
44	Teacher
45	Teacher
46	Teacher
47	Teacher
48	Teacher
49	Teacher
50	Teacher
51	Teacher
52	Teacher
53	Teacher
54	Teacher
55	Dean
56	Teacher
57	Teacher
58	Teacher
59	Teacher
60	Counselor
61	Teacher
62	Administrator
63	Department head
64	Teacher
65	Teacher
66	Teacher
67	Teacher
68	Teacher
69	Teacher

Total in faculty: 195
Total in sample: 78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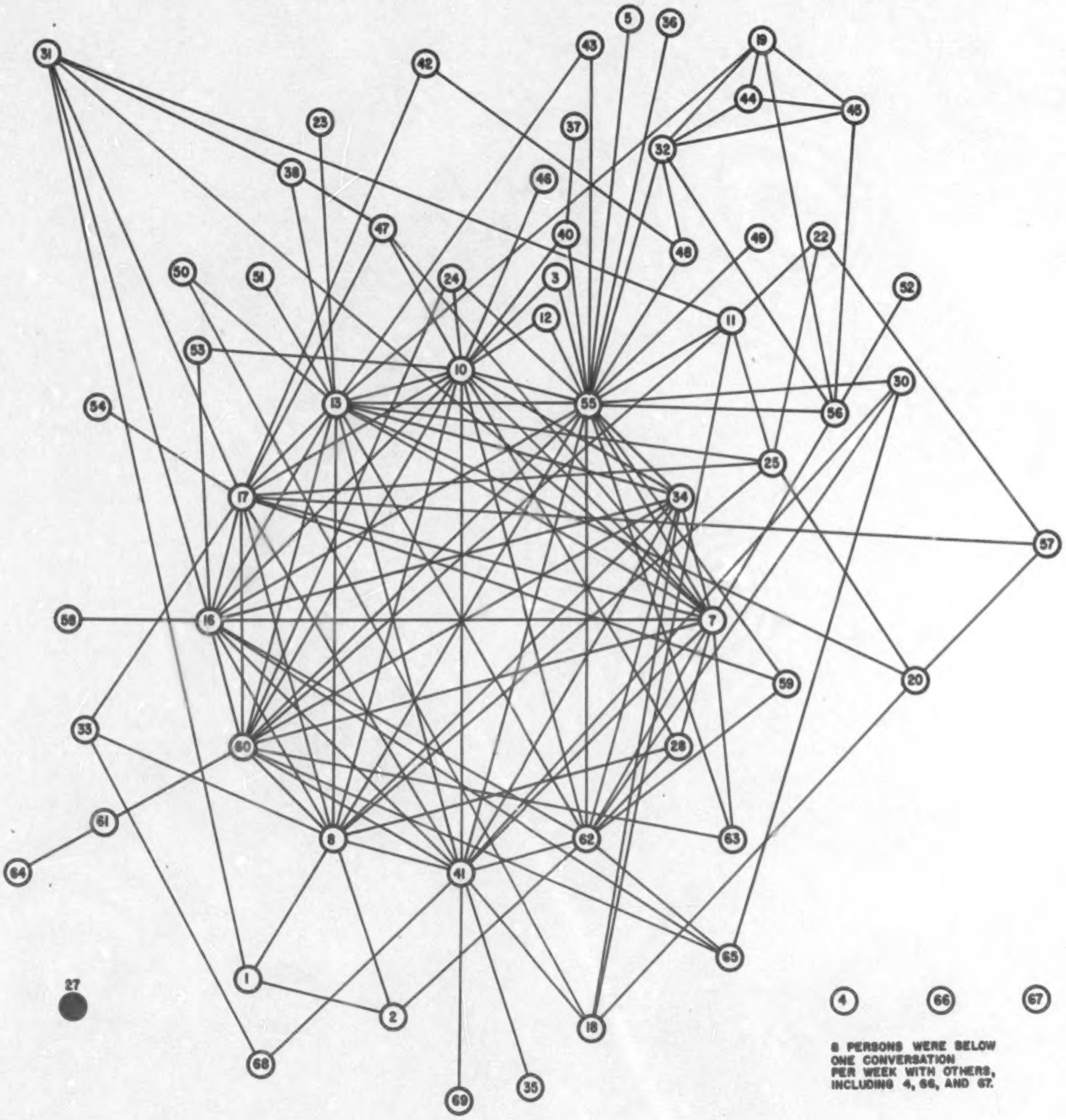
36 PERSONS WERE BELOW ONE CONVERSATION PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING IN SCHOOL NO. 257
CONNECTIONS SHOW EQUIVALENT OF ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59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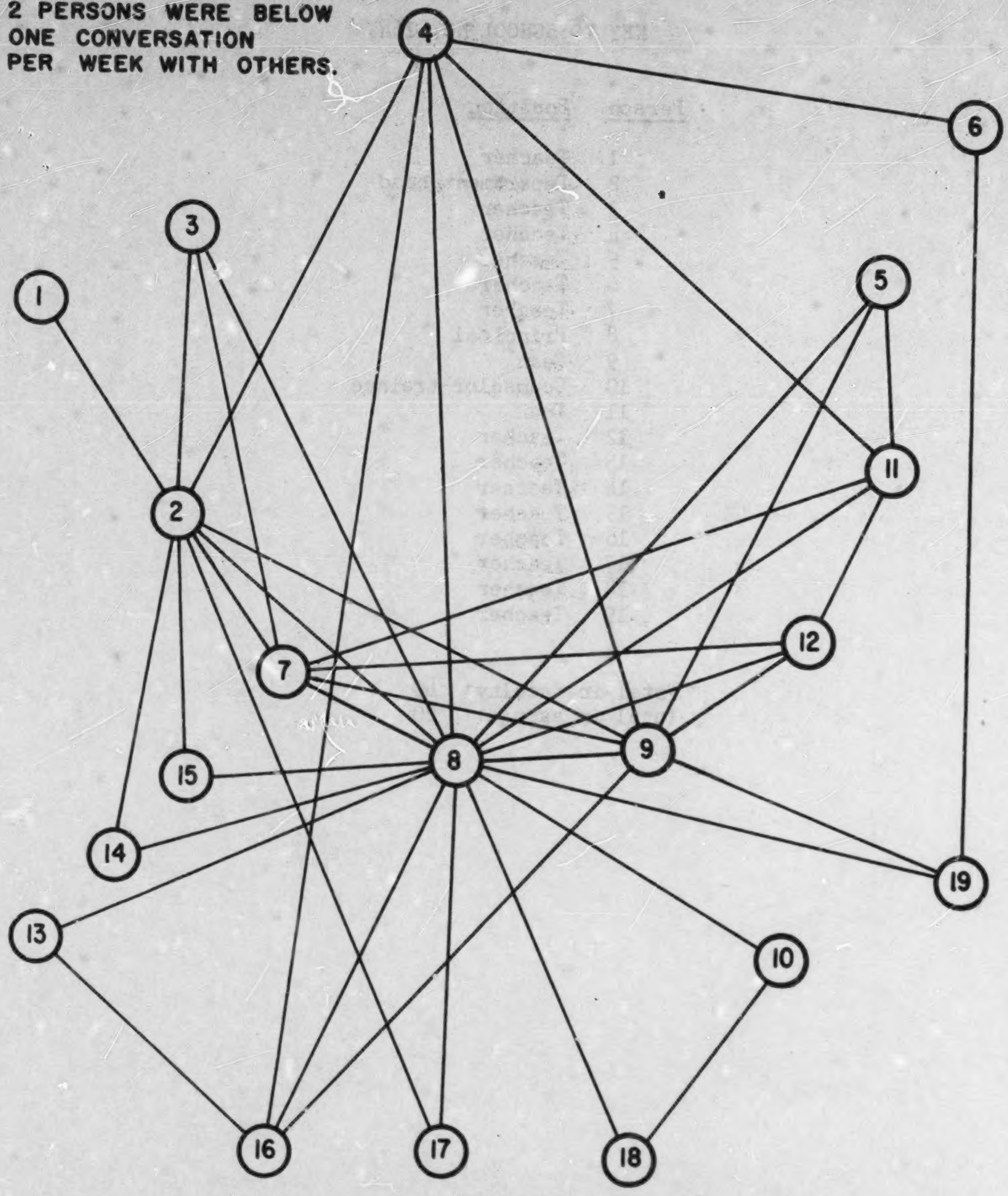
6 PERSONS WERE BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS,
INCLUDING 4, 66, AND 67.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 257
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '60

KEY TO SCHOOL NO. 264

Person	Position
1	Teacher
2	Department head
3	Teacher
4	Teacher
5	Teacher
6	Teacher
7	Teacher
8	Principal
9	Dean
10	Counselor trainee
11	Dean
12	Teacher
13	Teacher
14	Teacher
15	Teacher
16	Teacher
17	Teacher
18	Teacher
19	Teacher

Total in faculty: 40
Total in sample: 20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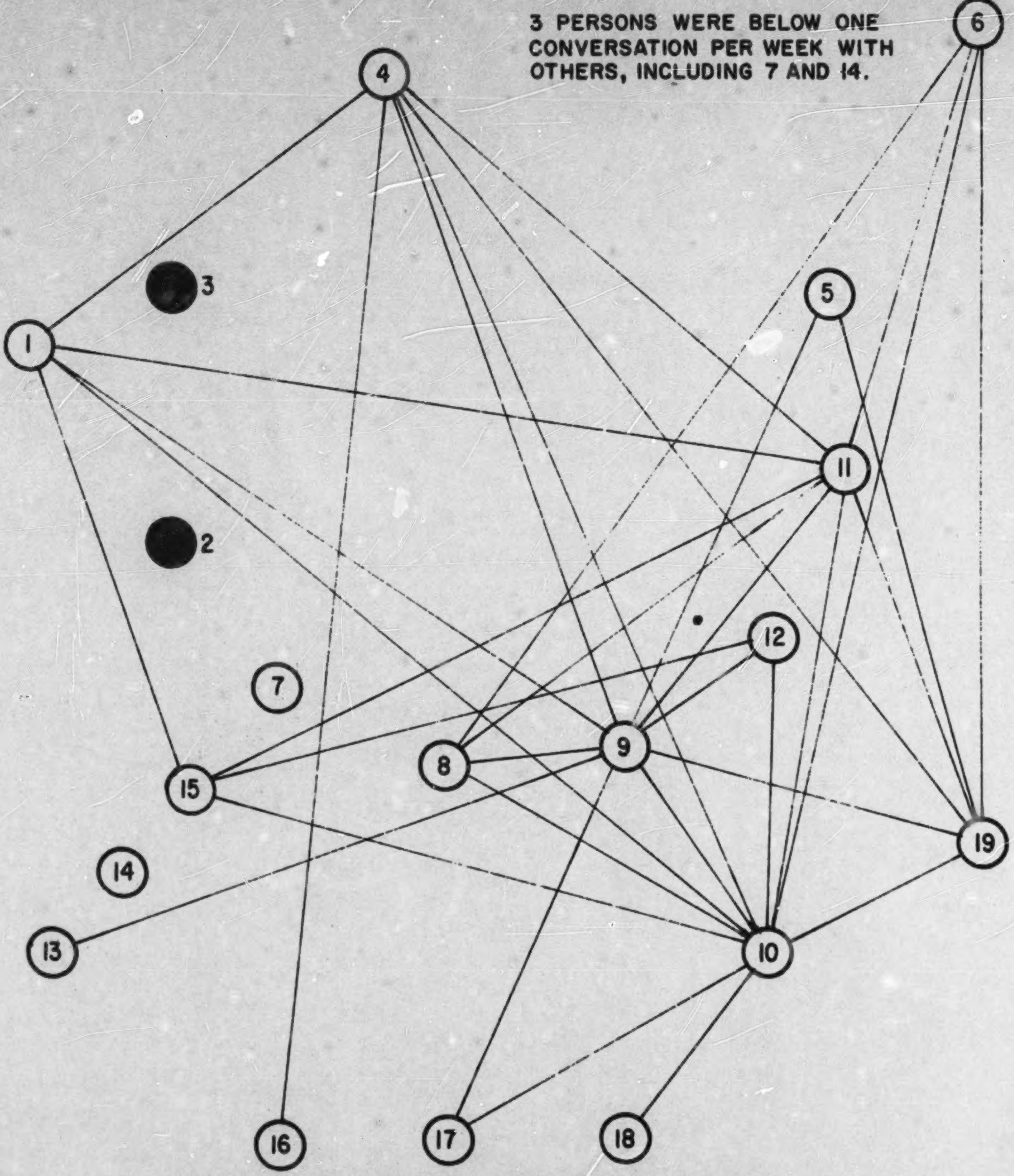
2 PERSONS WERE BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 264
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59

KEY TO SCHOOL NO. 264

Person	Position
1	Teacher
2	Department head
3	Teacher
4	Teacher
5	Teacher
6	Teacher
7	Teacher
8	Principal
9	Dean
10	Counselor trainee
11	Dean
12	Teacher
13	Teacher
14	Teacher
15	Teacher
16	Teacher
17	Teacher
18	Teacher
19	Teacher

Total in faculty: 40
Total in sample: 20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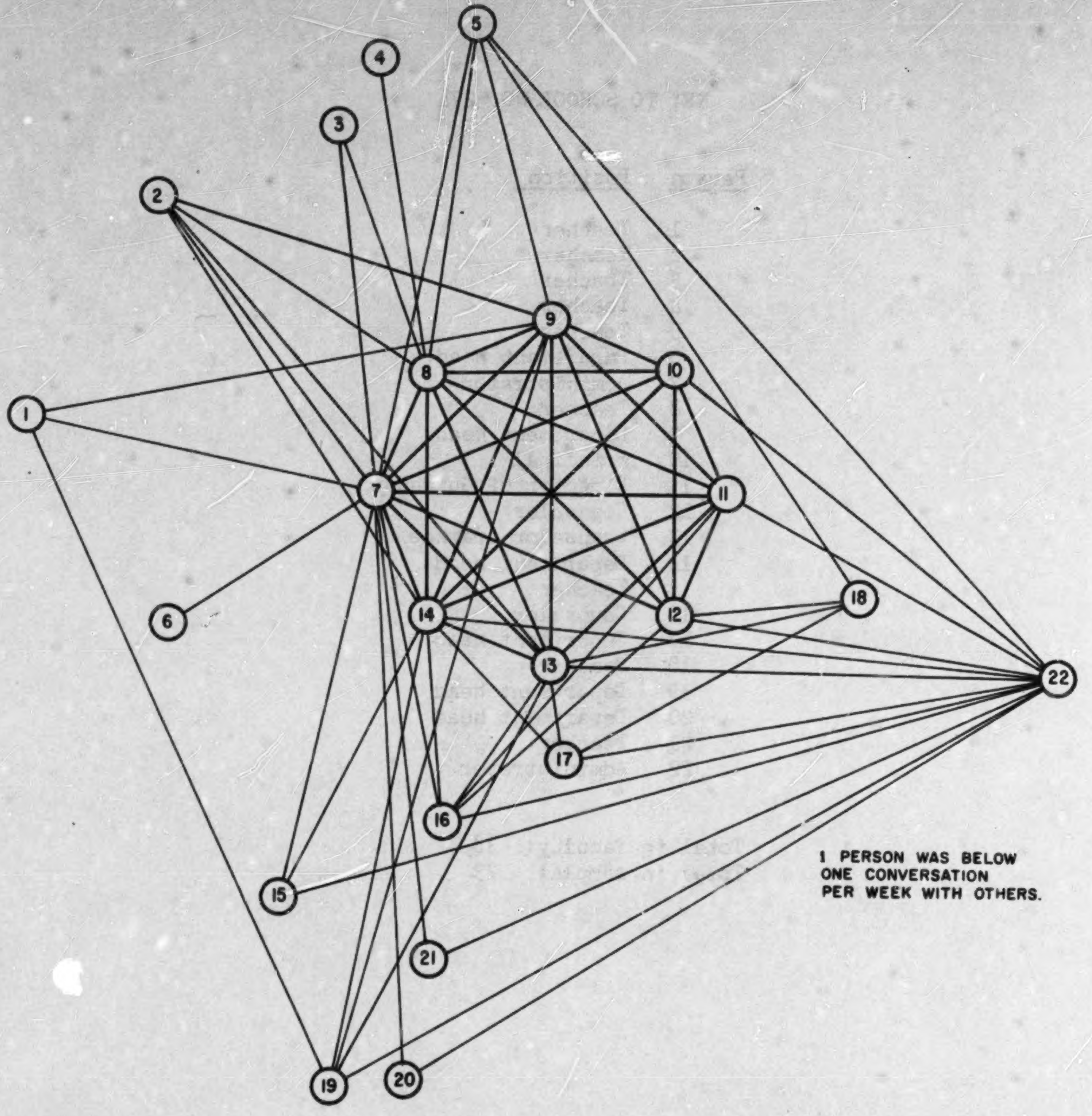
3 PERSONS WERE BELOW ONE
CONVERSATION PER WEEK WITH
OTHERS, INCLUDING 7 AND 14.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 264
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '60

KEY TO SCHOOL NO. 274

Person	Position
1	Teacher
2	Teacher
3	Teacher
4	Teacher
5	Teacher
6	Department head
7	Administrator
8	Teacher
9	Department head
10	Principal
11	Director of Guidance
12	Counselor
13	Counselor trainee
14	Department head
15	Teacher
16	Counselor
17	Department head
18	Teacher
19	Department head
20	Department head
21	Teacher
22	Administrator

Total in faculty: 38
Total in sample: 23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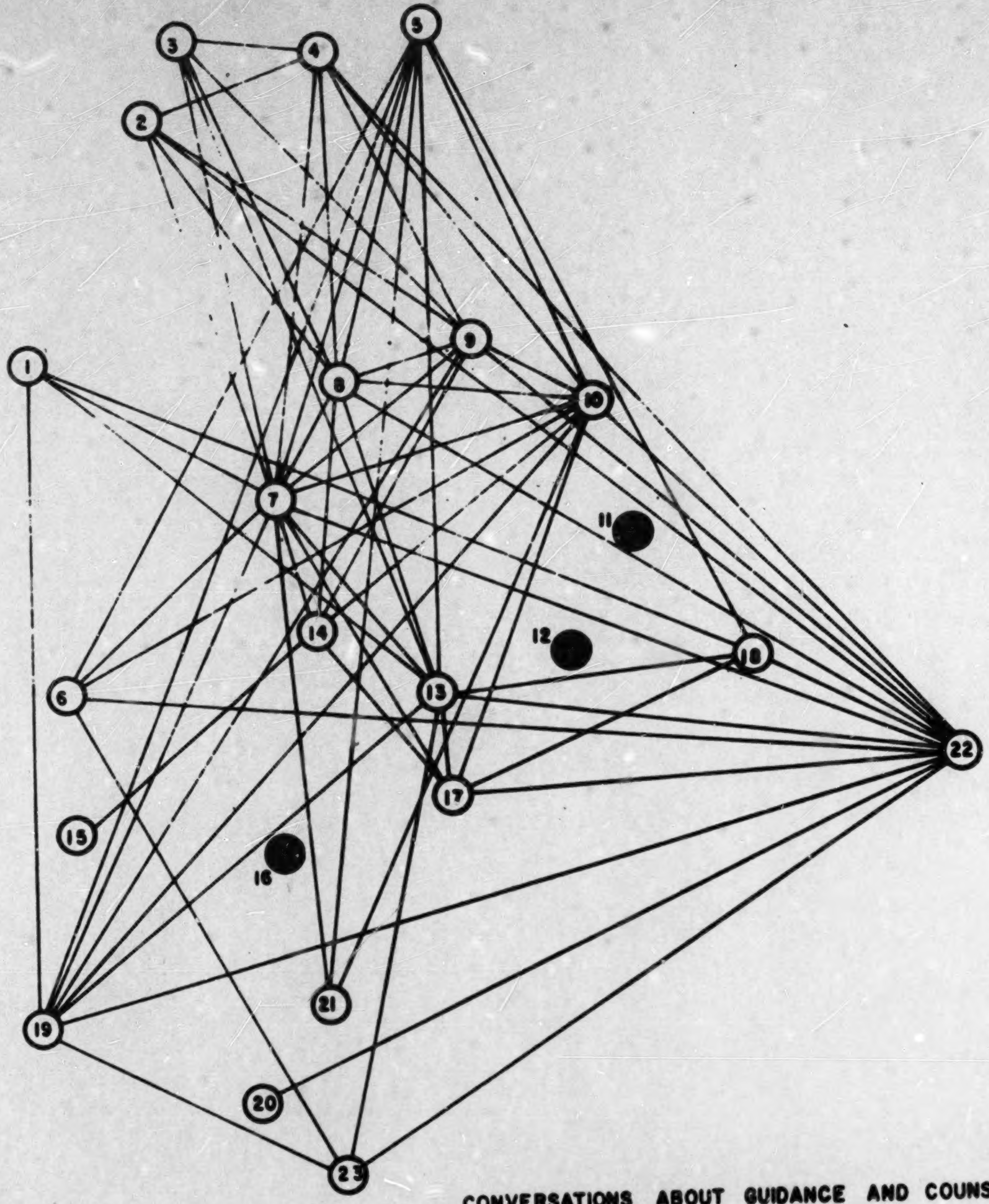
1 PERSON WAS BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 274
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59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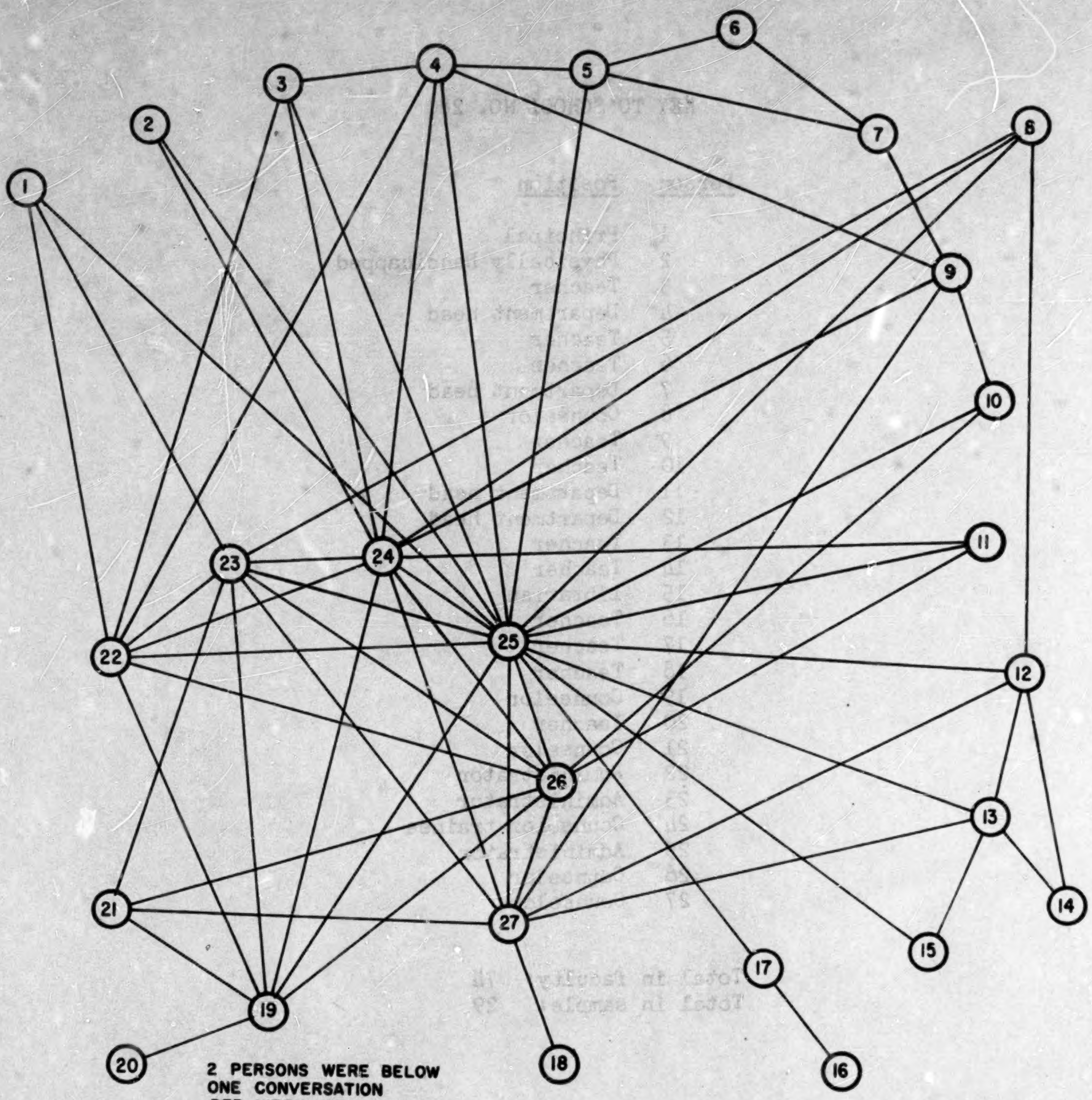
CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 274
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '60

KEY TO SCHOOL NO. 280

Person	Position
1	Principal
2	Physically Handicapped
3	Teacher
4	Department head
5	Teacher
6	Teacher
7	Department head
8	Counselor
9	Teacher
10	Teacher
11	Department head
12	Department head
13	Teacher
14	Teacher
15	Librarian
16	Teacher
17	Teacher
18	Teacher
19	Counselor
20	Teacher
21	Counselor
22	Administrator
23	Administrator
24	Counselor trainee
25	Administrator
26	Counselor
27	Counselor

Total in faculty: 74
Total in sample: 29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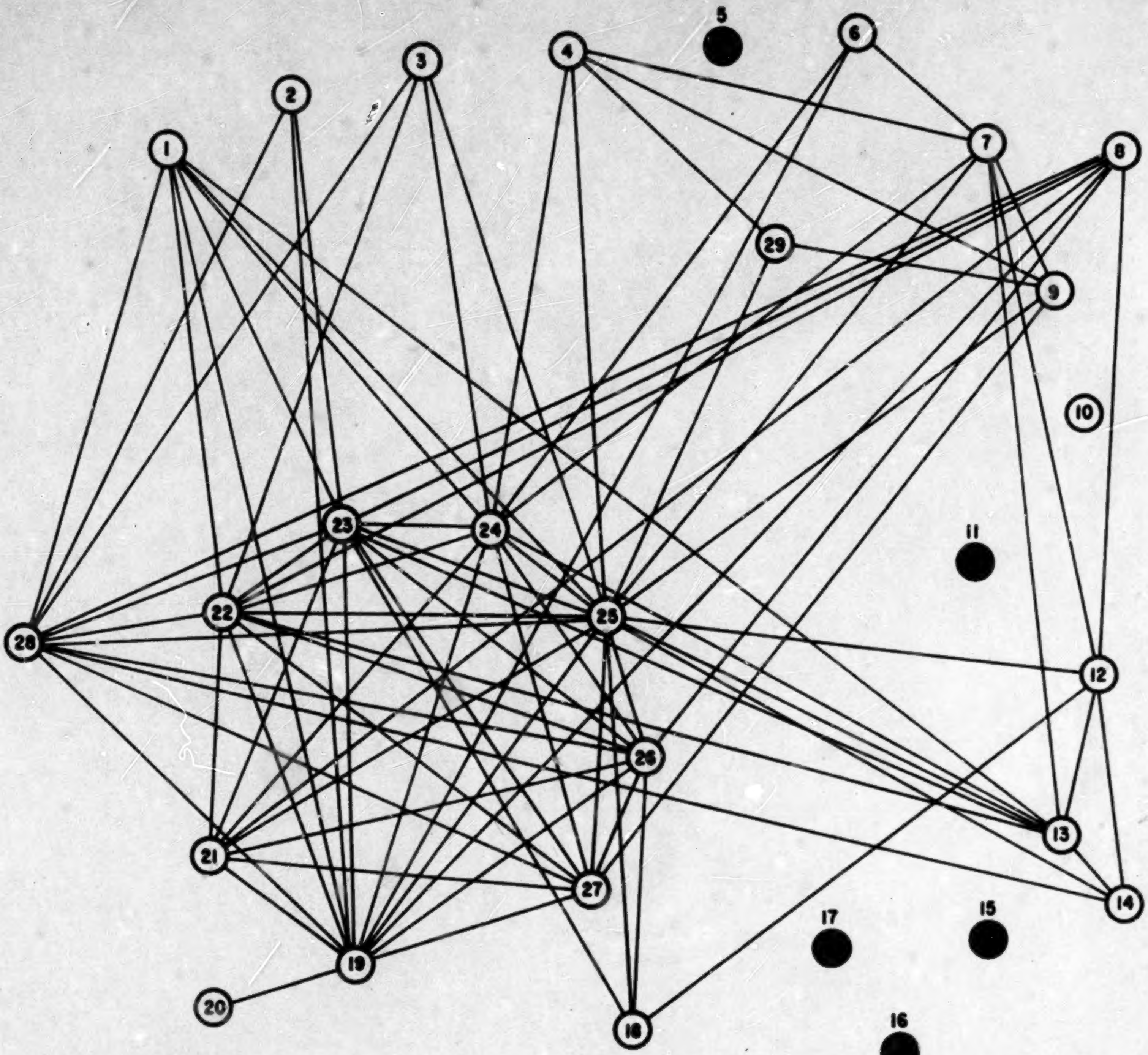
2 PERSONS WERE BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 280
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr - si FALL '59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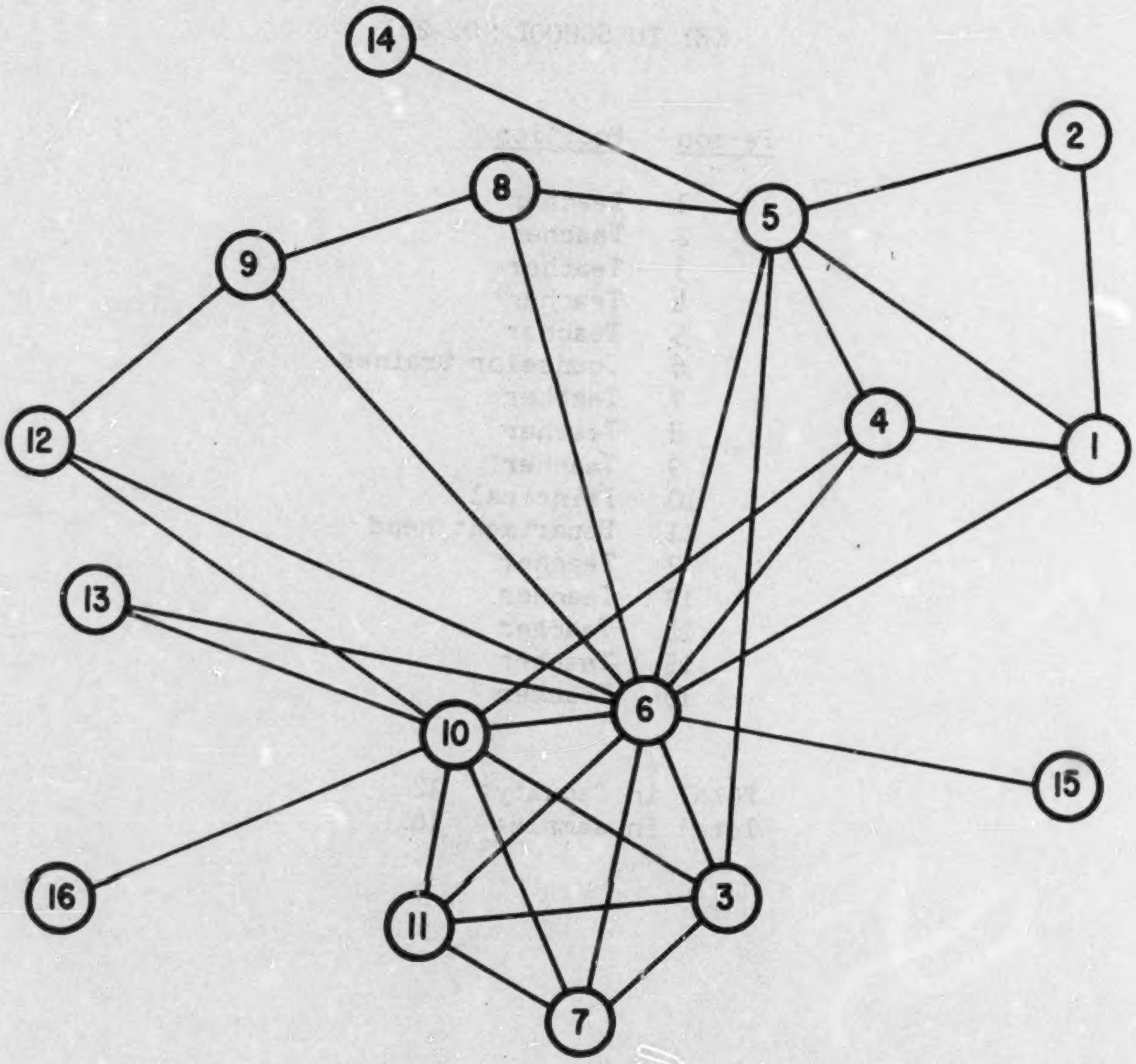
PERSON 10 WAS BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 280
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '60

KEY TO SCHOOL NO. 281

Person	Position
1	Teacher
2	Teacher
3	Teacher
4	Teacher
5	Teacher
6	Counselor trainee
7	Teacher
8	Teacher
9	Teacher
10	Principal
11	Department head
12	Teacher
13	Teacher
14	Teacher
15	Teacher
16	Teacher

Total in faculty: 32
Total in sample: 16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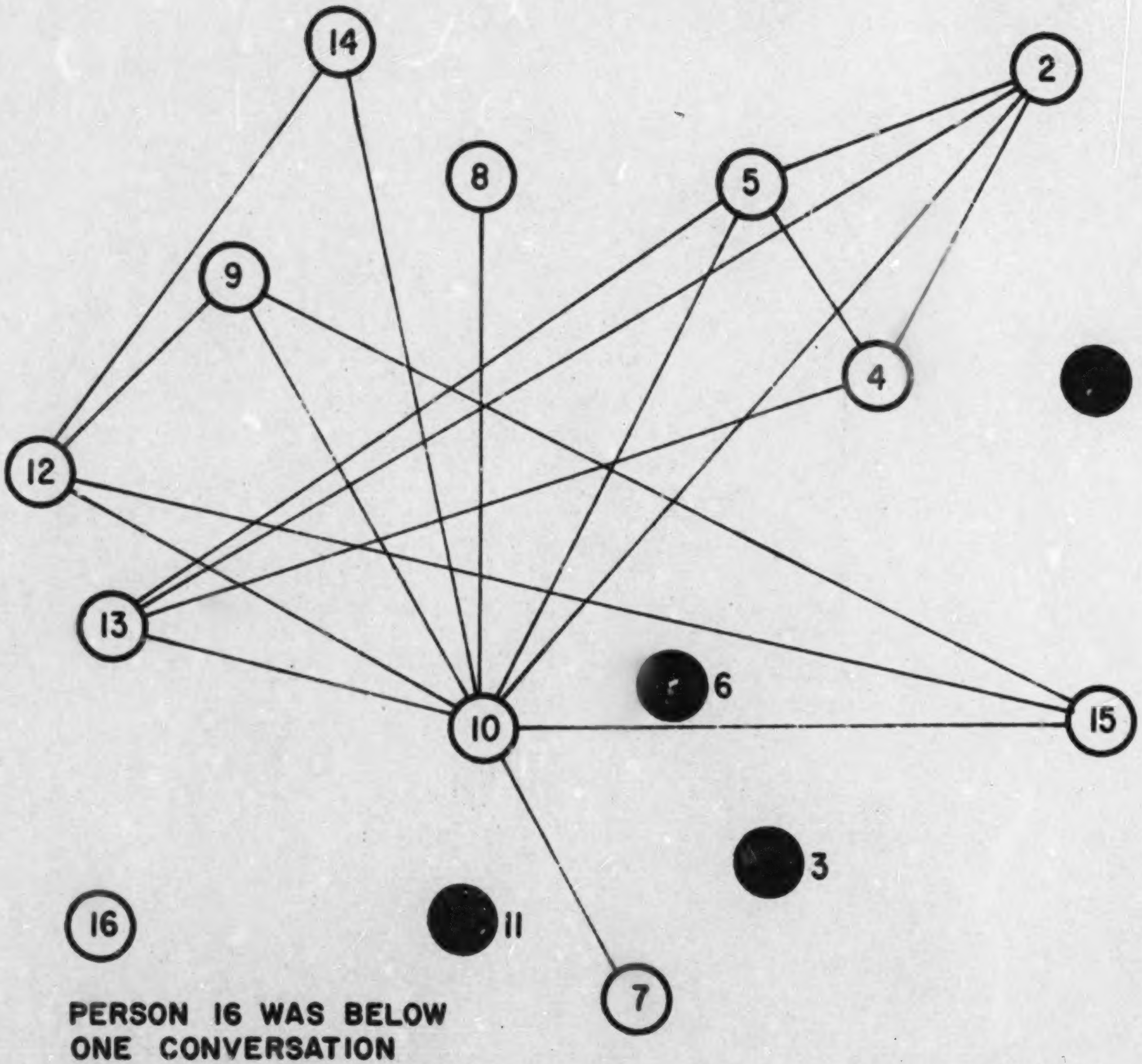
CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 281
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59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PERSON 16 WAS BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

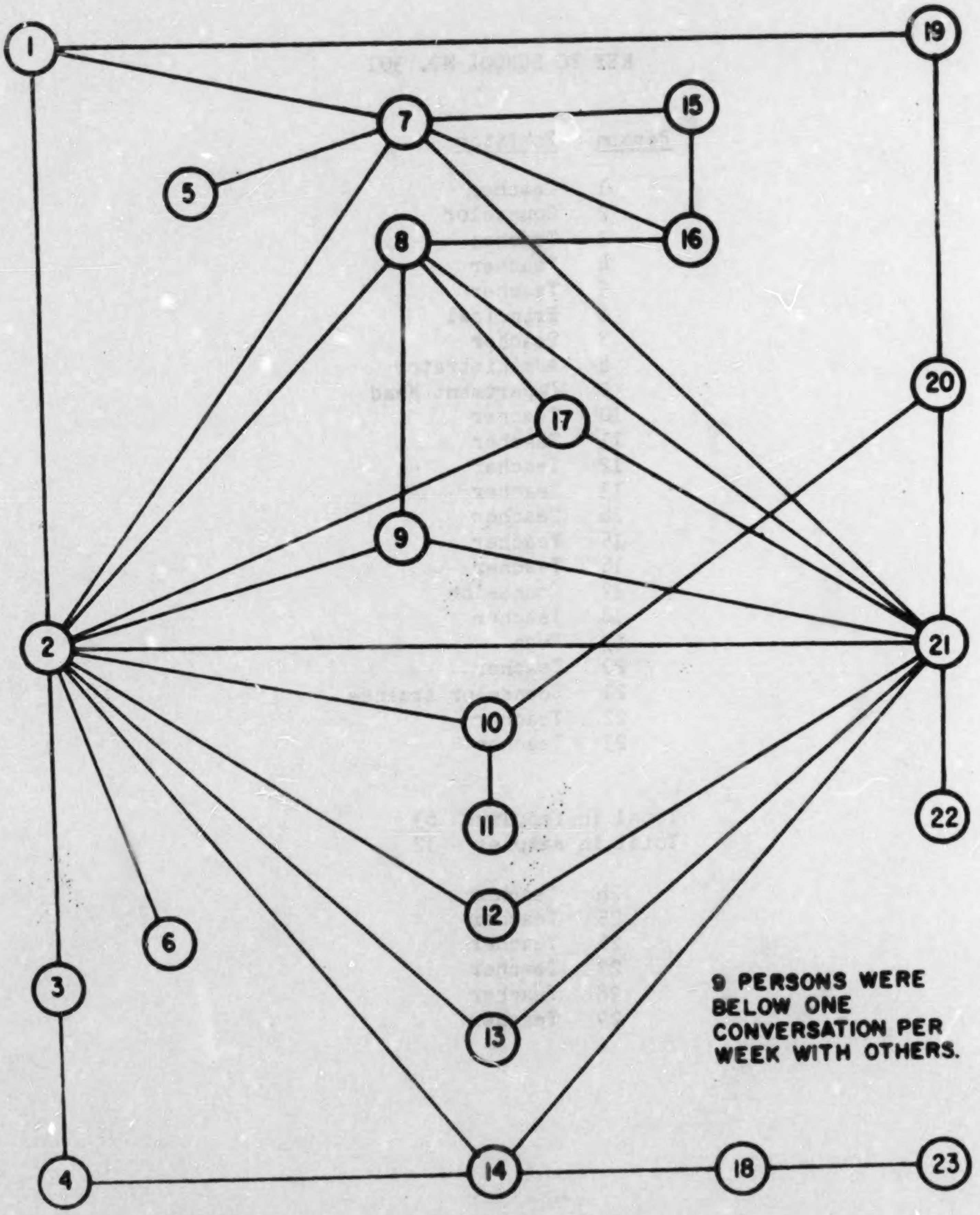
CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 281
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '60

KEY TO SCHOOL NO. 301

Person	Position
1	Teacher
2	Counselor
3	Teacher
4	Teacher
5	Teacher
6	Principal
7	Teacher
8	Administrator
9	Department Head
10	Teacher
11	Teacher
12	Teacher
13	Teacher
14	Teacher
15	Teacher
16	Teacher
17	Counselor
18	Teacher
19	Dean
20	Teacher
21	Counselor trainee
22	Teacher
23	Teacher

Total in faculty: 63
Total in sample: 32

24	Teacher
25	Teacher
26	Teacher
27	Teacher
28	Teacher
29	Teacher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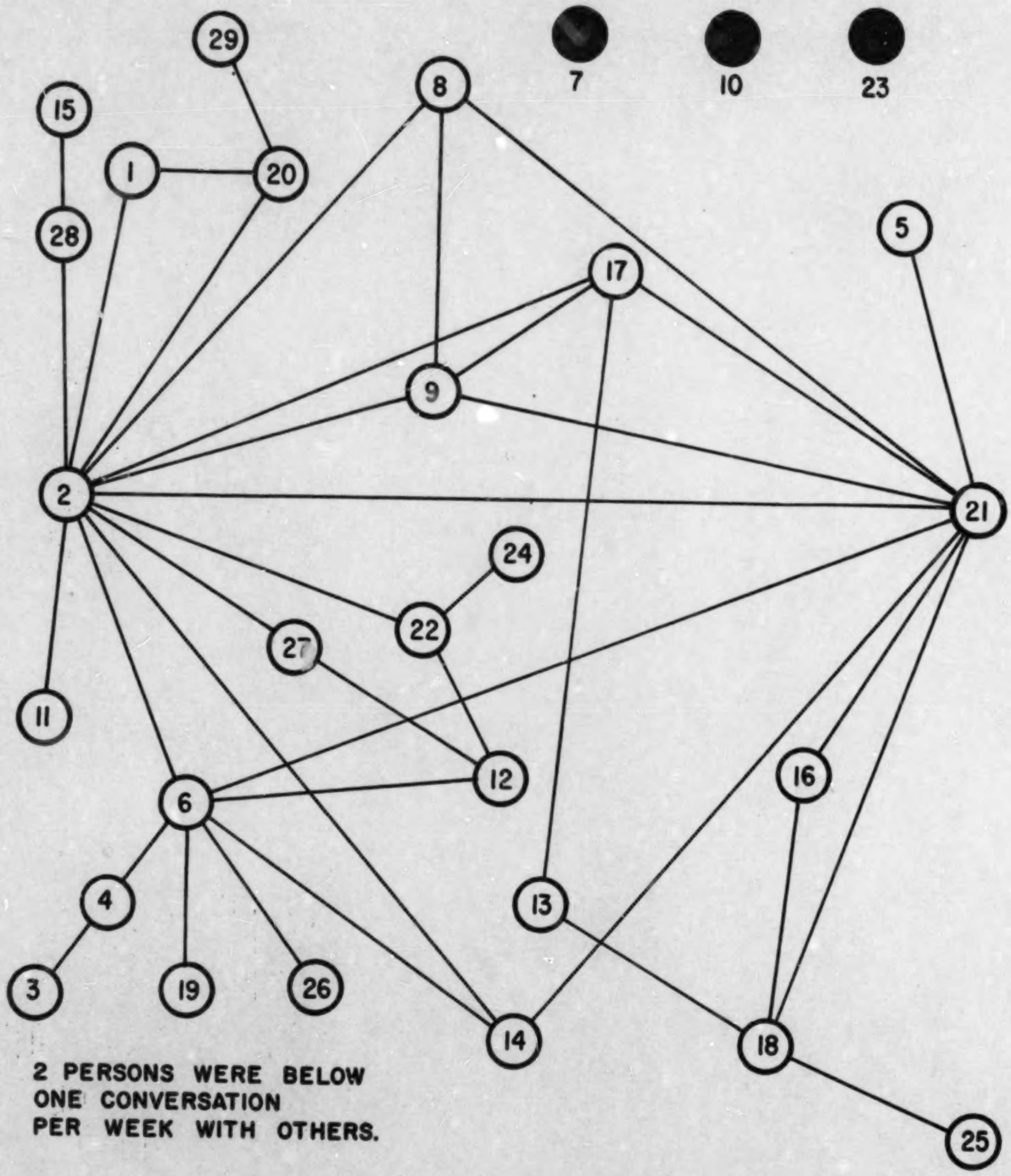
9 PERSONS WERE
BELOW ONE
CONVERSATION PER
WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 301
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr - si FALL '59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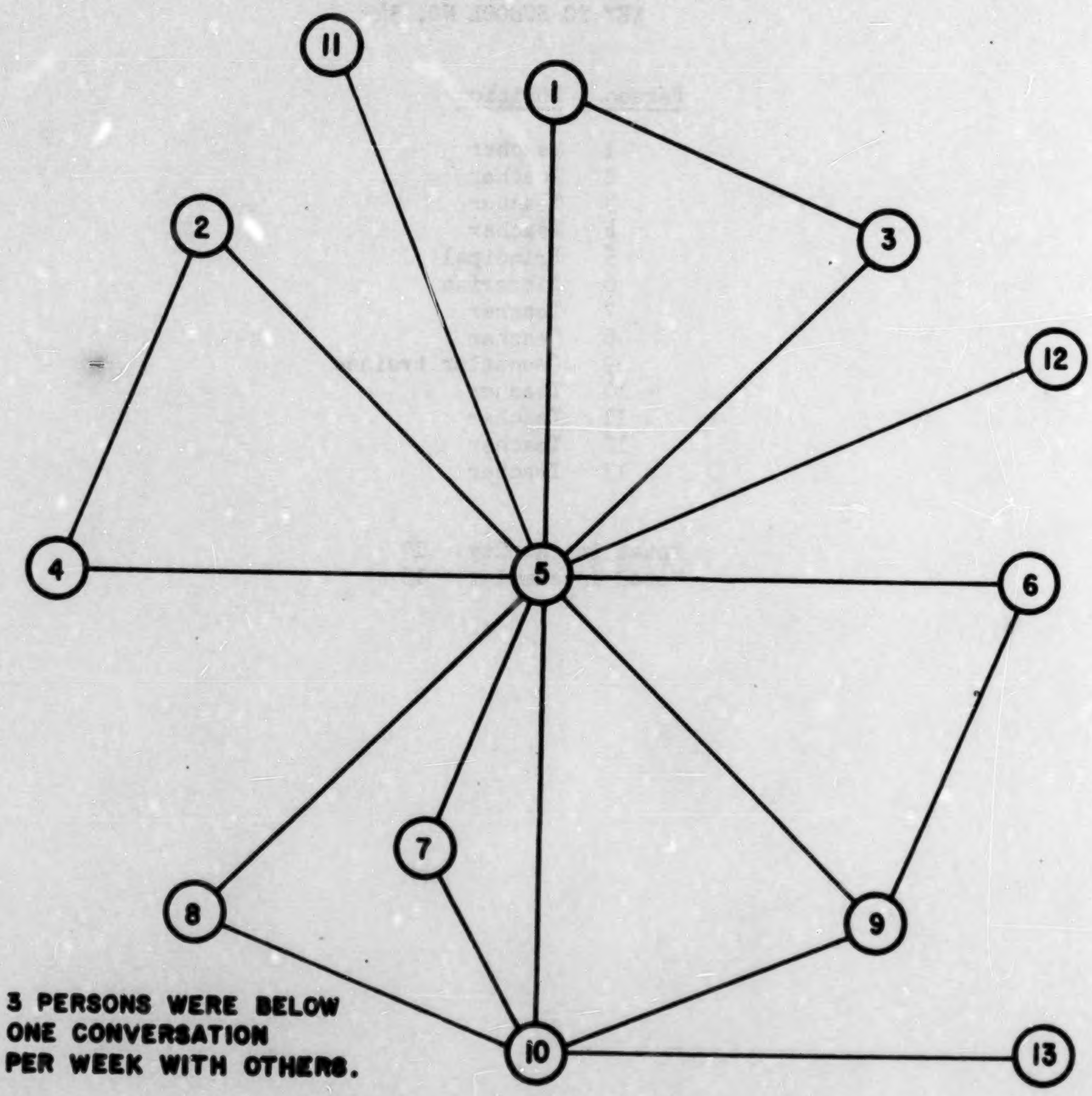
2 PERSONS WERE BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 301
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr - si FALL '60

KEY TO SCHOOL NO. 343

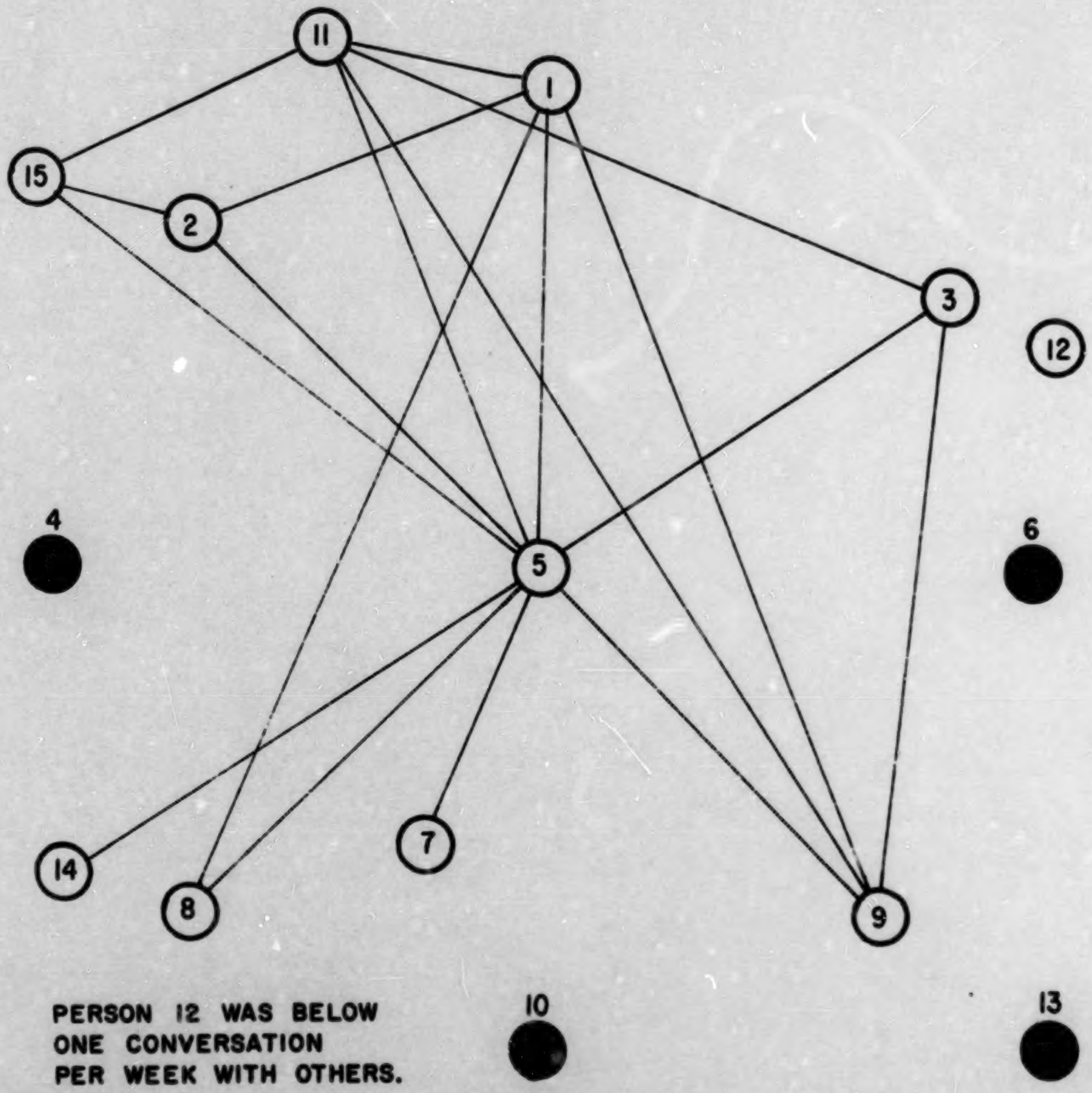
Person	Position
1	Teacher
2	Teacher
3	Teacher
4	Teacher
5	Principal
6	Librarian
7	Teacher
8	Teacher
9	Counselor trainee
10	Teacher
11	Teacher
12	Teacher
13	Teacher

Total in faculty: 17
Total in sample: 15



3 PERSONS WERE BELOW ONE CONVERSATION PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 343
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59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PERSON 12 WAS BELOW ONE CONVERSATION PER WEEK WITH OTHERS.

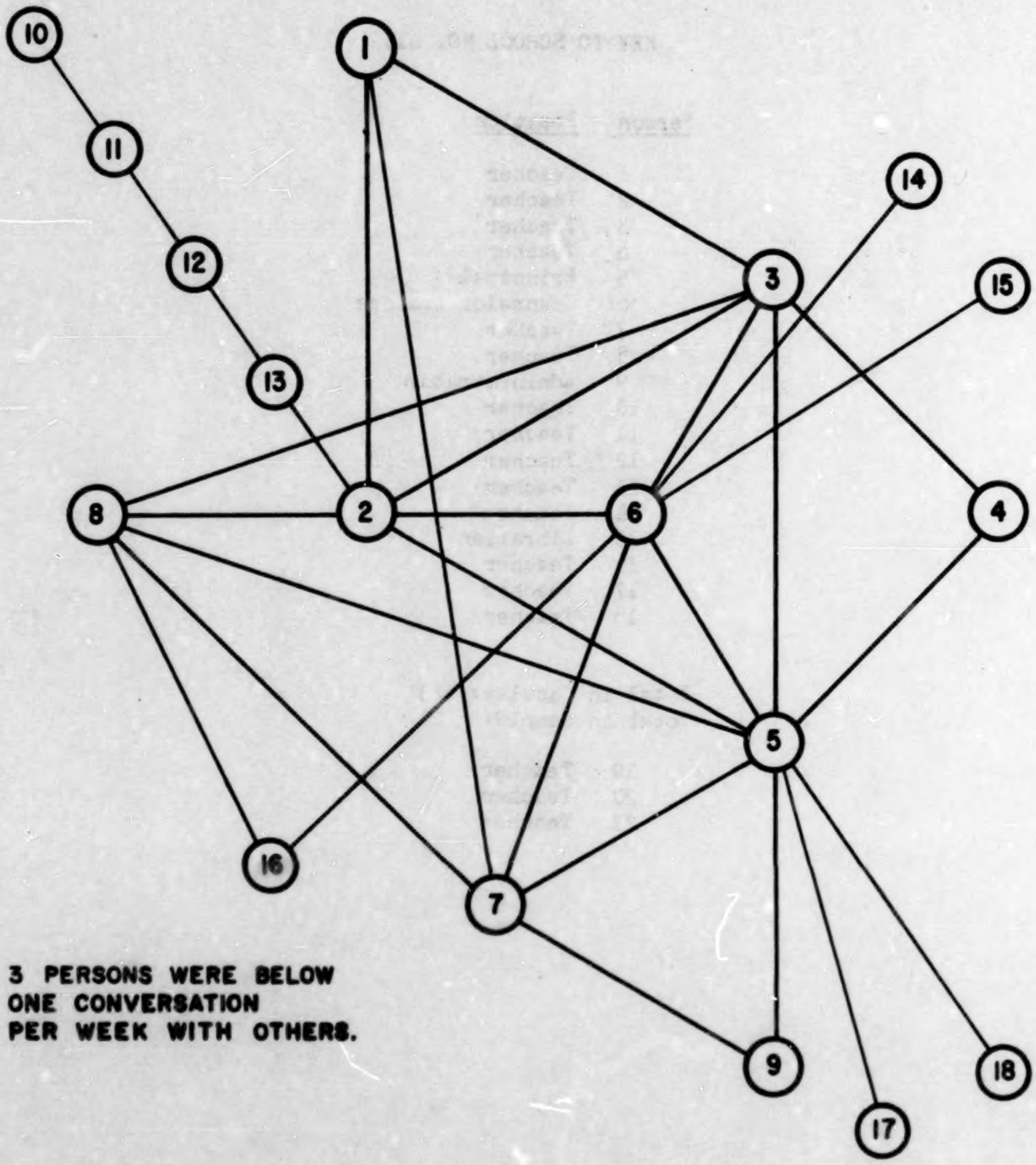
CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 343
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr - si FALL '60

KEY TO SCHOOL NO. 415

Person	Position
1	Teacher
2	Teacher
3	Teacher
4	Teacher
5	Principal
6	Counselor trainee
7	Teacher
8	Teacher
9	Administrator
10	Teacher
11	Teacher
12	Teacher
13	Teacher
14	Teacher
15	Librarian
16	Teacher
17	Teacher
18	Teacher

Total in faculty: 23
Total in sample: 21

19	Teacher
20	Teacher
21	Teacher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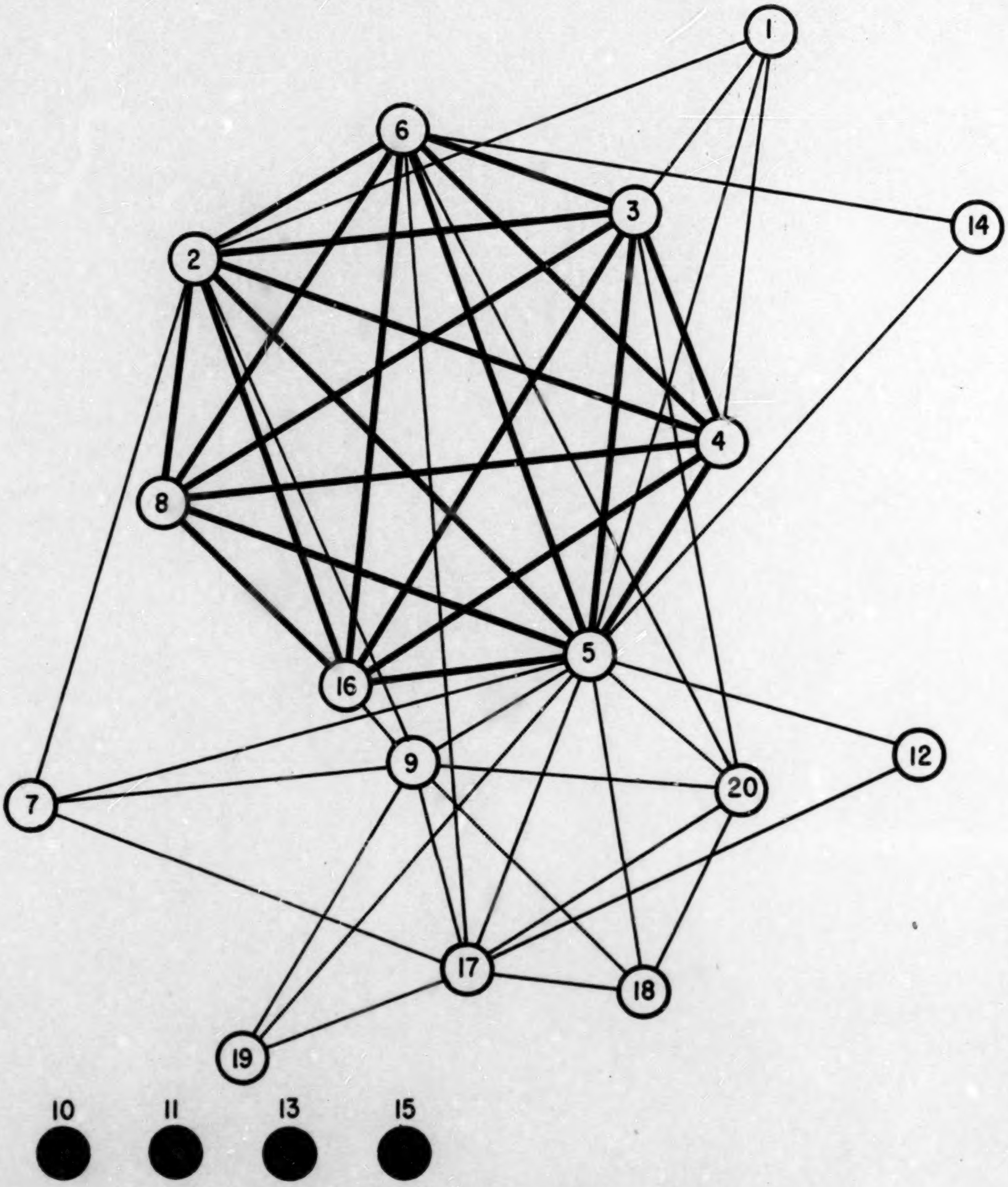
3 PERSONS WERE BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 415
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr - si FALL '59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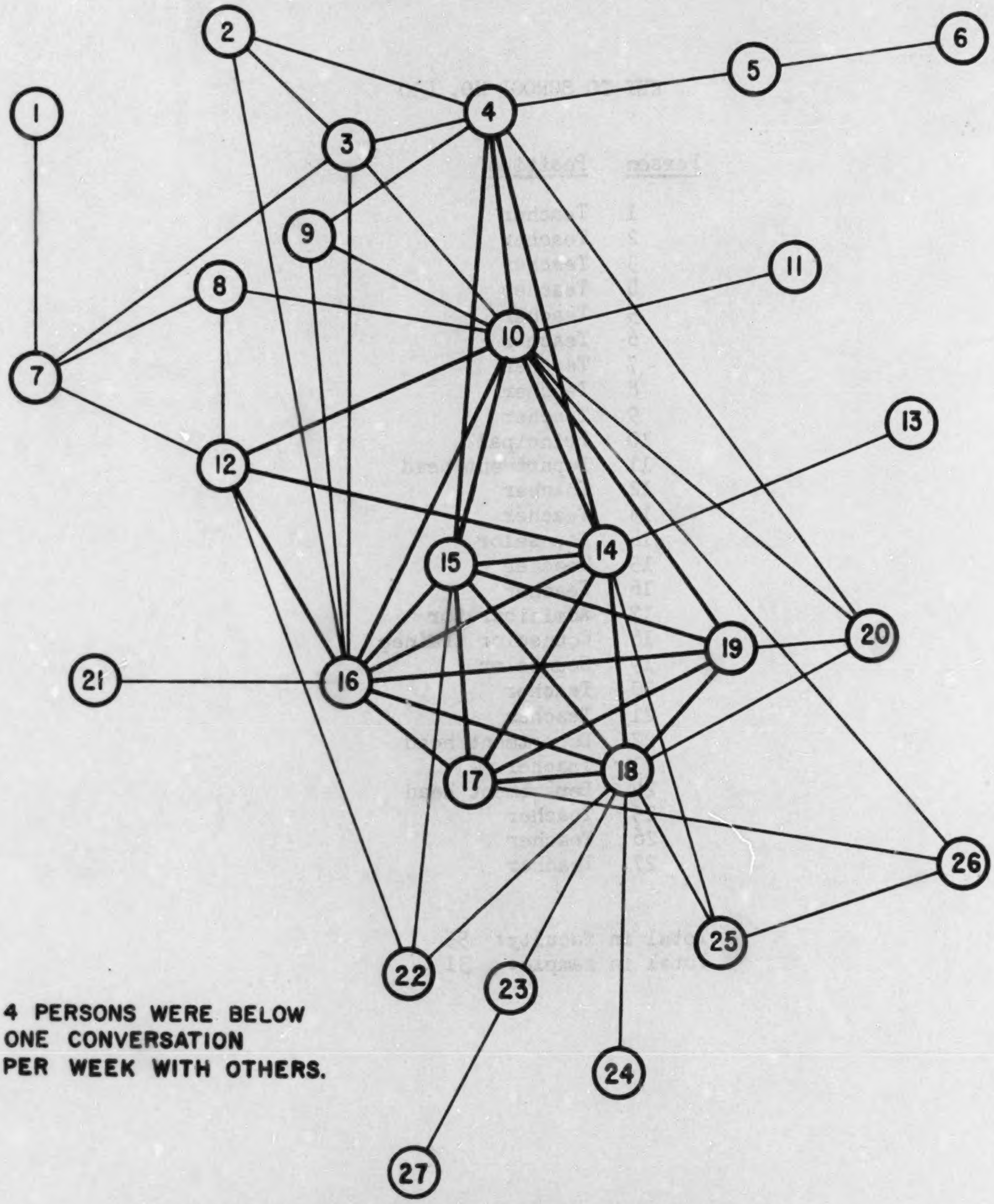
CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 415
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr - si FALL '60

KEY TO SCHOOL NO. 430

Person	Position
1	Teacher
2	Teacher
3	Teacher
4	Teacher
5	Teacher
6	Teacher
7	Teacher
8	Teacher
9	Teacher
10	Principal
11	Department head
12	Teacher
13	Teacher
14	Counselor
15	Teacher
16	Teacher
17	Administrator
18	Counselor trainee
19	Counselor
20	Teacher
21	Teacher
22	Department head
23	Teacher
24	Department head
25	Teacher
26	Teacher
27	Teacher

Total in faculty: 55
Total in sample: 31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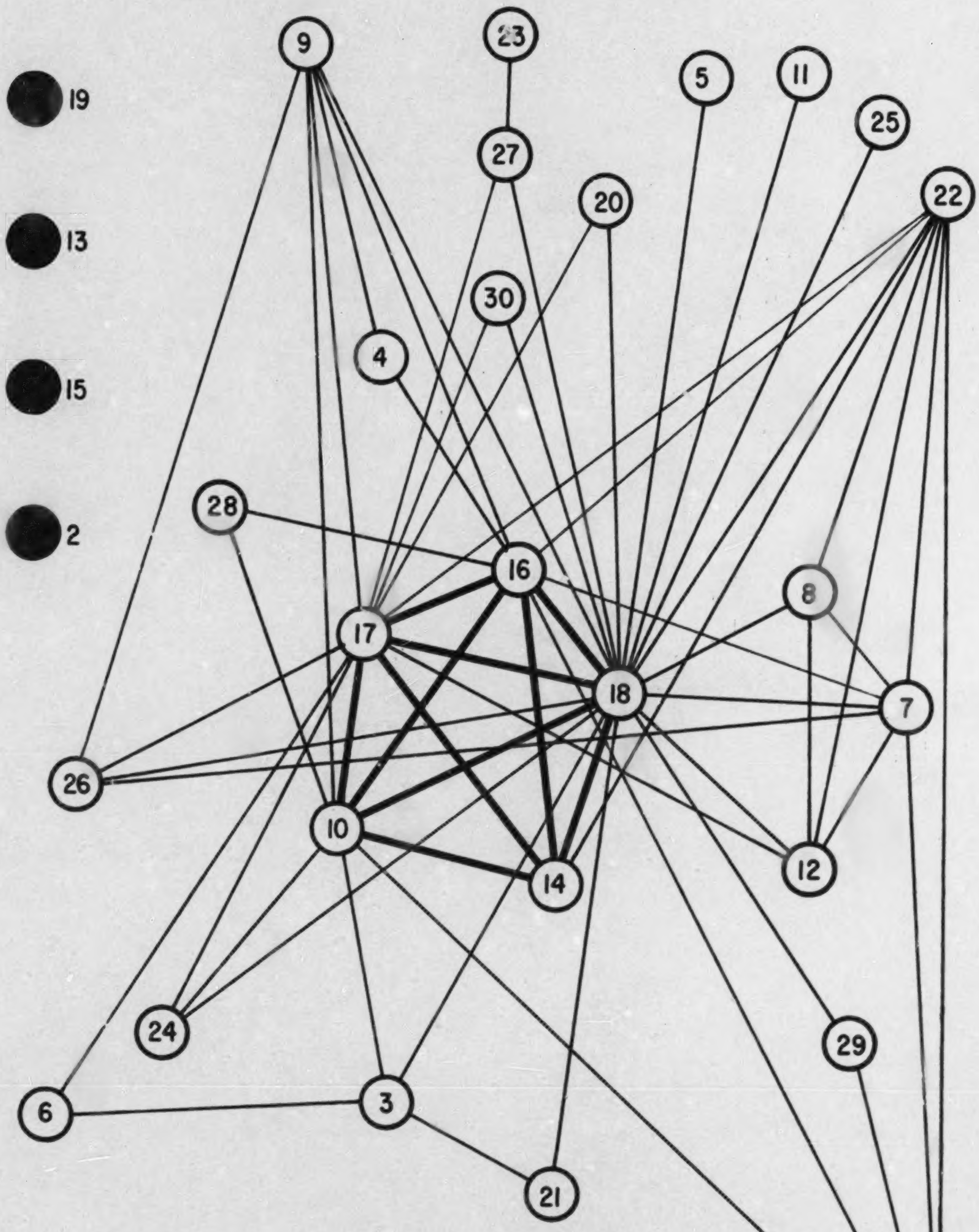
4 PERSONS WERE BELOW ONE CONVERSATION PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 430
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr - si FALL '59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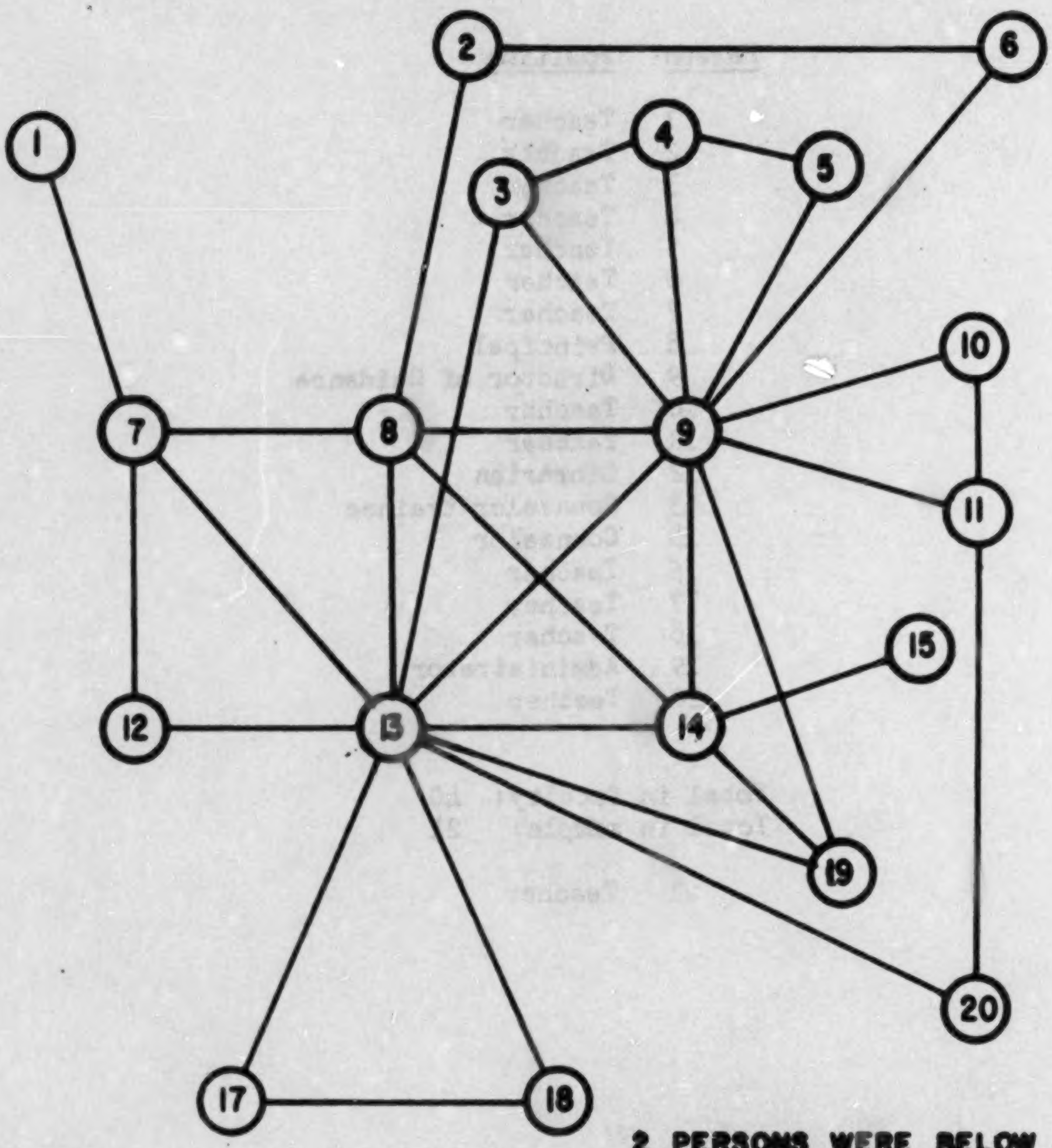
CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 430
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '60

KEY TO SCHOOL NO. 463

Person	Position
1	Teacher
2	Teacher
3	Teacher
4	Teacher
5	Teacher
6	Teacher
7	Teacher
8	Principal
9	Director of Guidance
10	Teacher
11	Teacher
12	Librarian
13	Counselor trainee
14	Counselor
15	Teacher
17	Teacher
18	Teacher
19	Administrator
20	Teacher

Total in faculty: 40
Total in sample: 21

21 Teacher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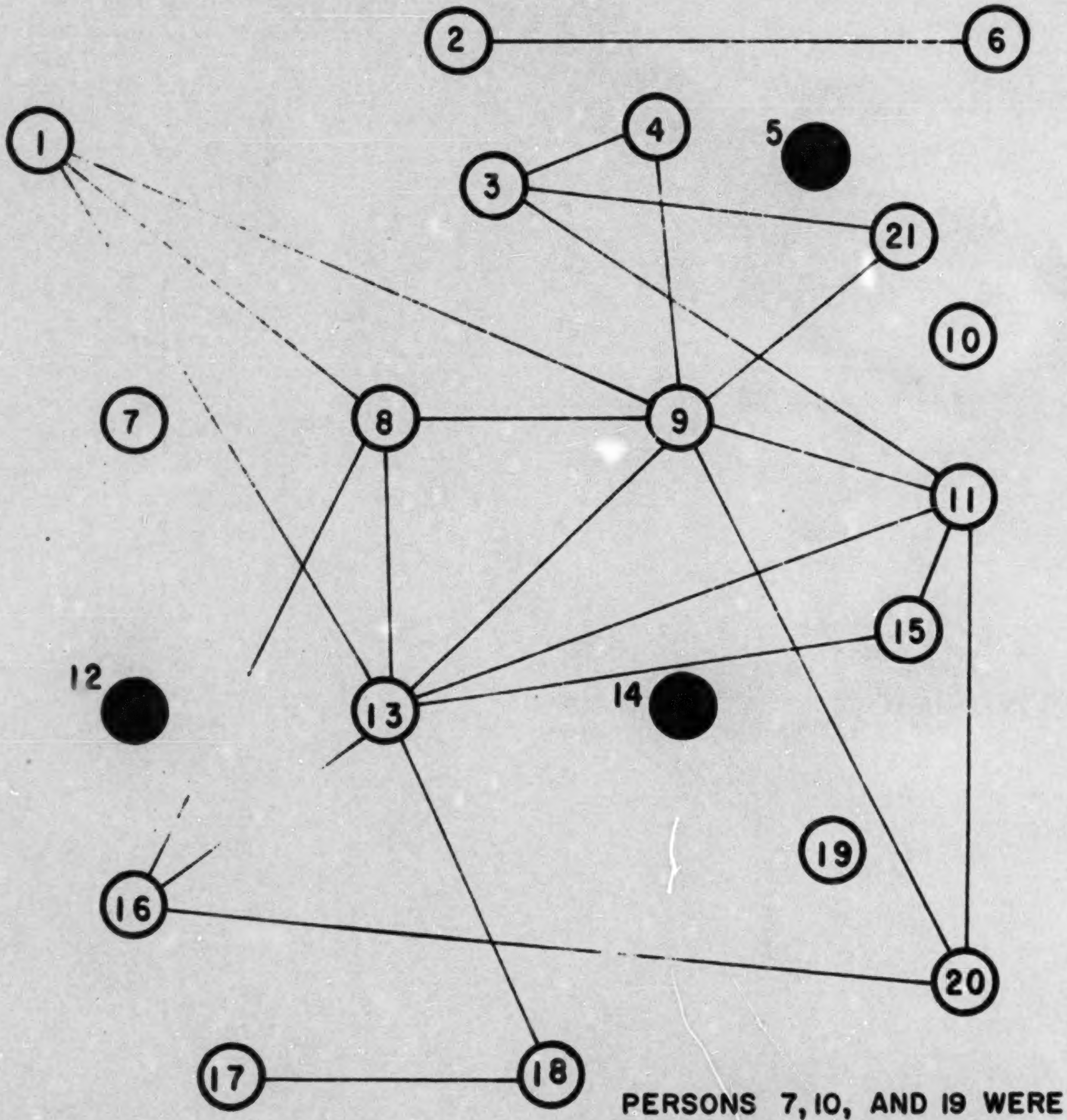
2 PERSONS WERE BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 463
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59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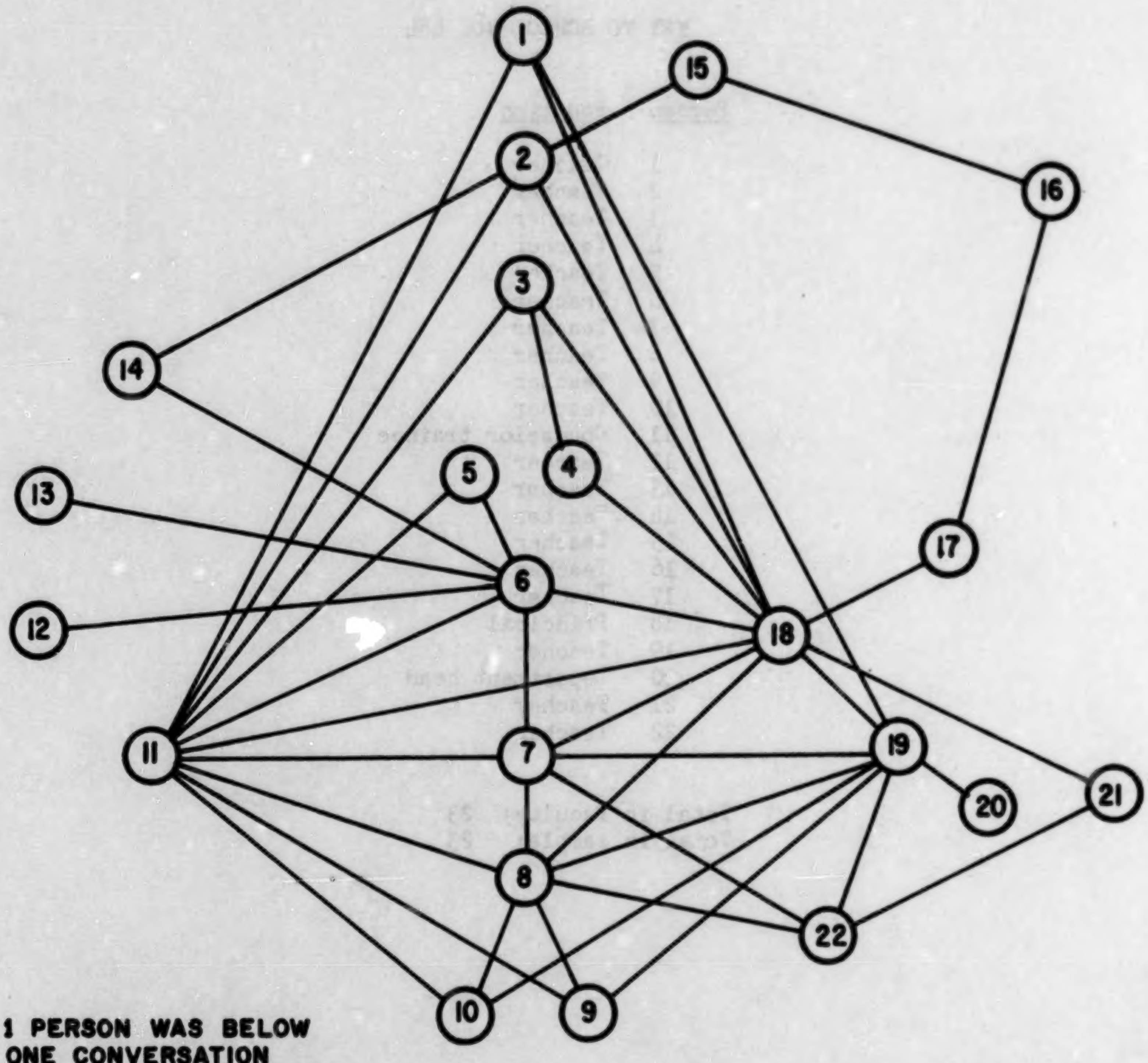
PERSONS 7, 10, AND 19 WERE BELOW ONE CONVERSATION PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 463
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr -si FALL '60

KEY TO SCHOOL NO. 484

Person	Position
1	Teacher
2	Teacher
3	Teacher
4	Teacher
5	Teacher
6	Teacher
7	Teacher
8	Teacher
9	Teacher
10	Teacher
11	Counselor trainee
12	Teacher
13	Teacher
14	Teacher
15	Teacher
16	Teacher
17	Teacher
18	Principal
19	Teacher
20	Department head
21	Teacher
22	Teacher

Total in faculty: 23
Total in sample: 23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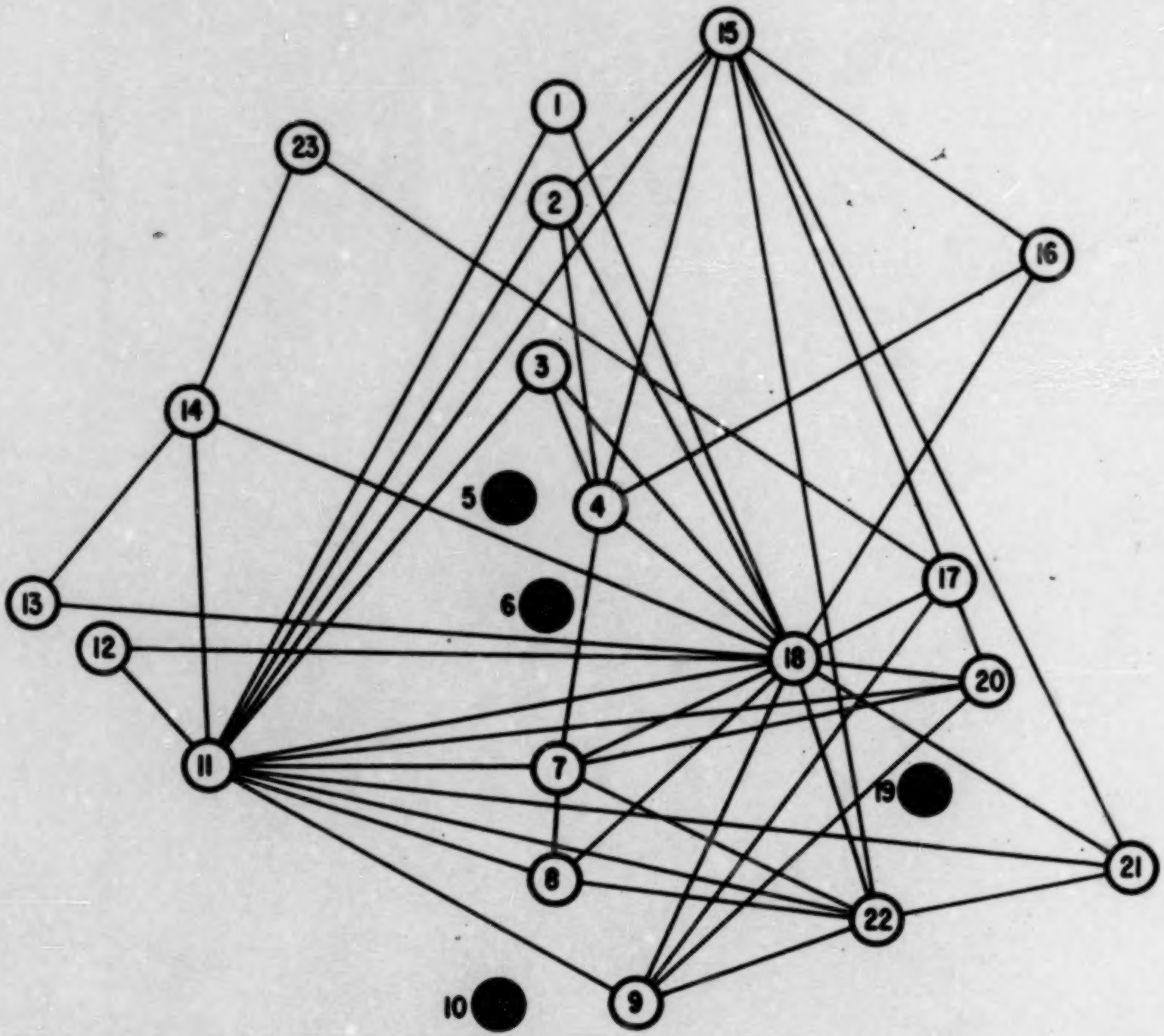
1 PERSON WAS BELOW ONE CONVERSATION PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 484
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr - si FALL '59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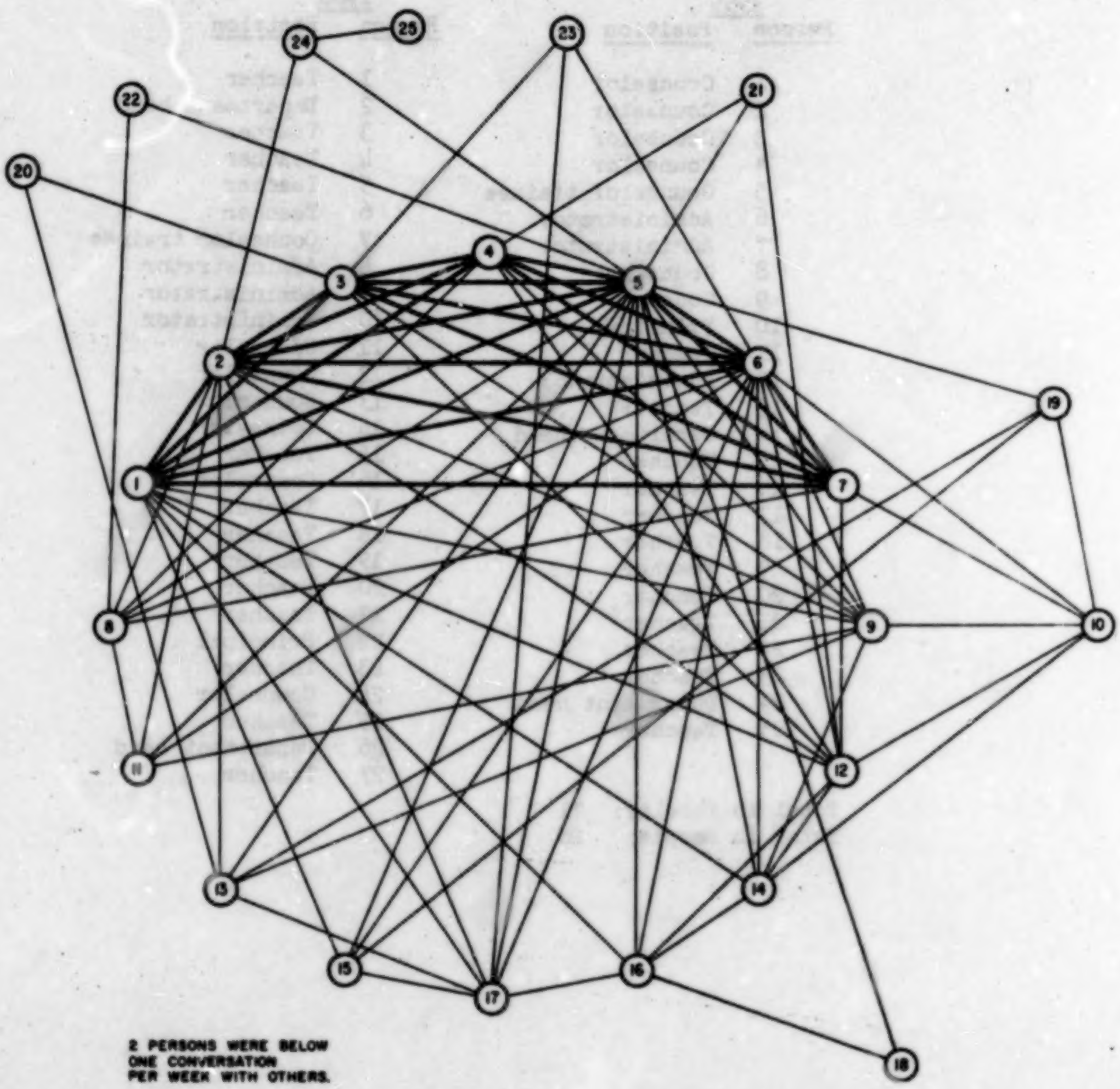
CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 484
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr - si FALL '60

KEY TO SCHOOL NO. 488

1959		1960	
Person	**Position**	**Person**	**Position**
1	Counselor	1	Teacher
2	Counselor	2	Department head
3	Counselor	3	Teacher
4	Counselor	4	Teacher
5	Counselor trainee	5	Teacher
6	Administrator	6	Teacher
7	Administrator	7	Counselor trainee
8	Counselor	8	Administrator
9	Counselor	9	Administrator
10	Principal	10	Administrator
11	Teacher	11	Counselor
12	Administrator	12	Counselor
13	Teacher	13	Counselor
14	Department head	14	Counselor
15	Teacher	15	Teacher
16	Teacher	16	Counselor
17	Teacher	17	Teacher
18	Teacher	18	Teacher
19	Teacher	19	Teacher
20	Teacher	20	Teacher
21	Teacher	21	Teacher
22	Teacher	22	Principal
23	Teacher	23	Teacher
24	Department head	24	Counselor
25	Teacher	25	Teacher
		26	Department head
		27	Teacher

Total in faculty: 71
Total in sample: 28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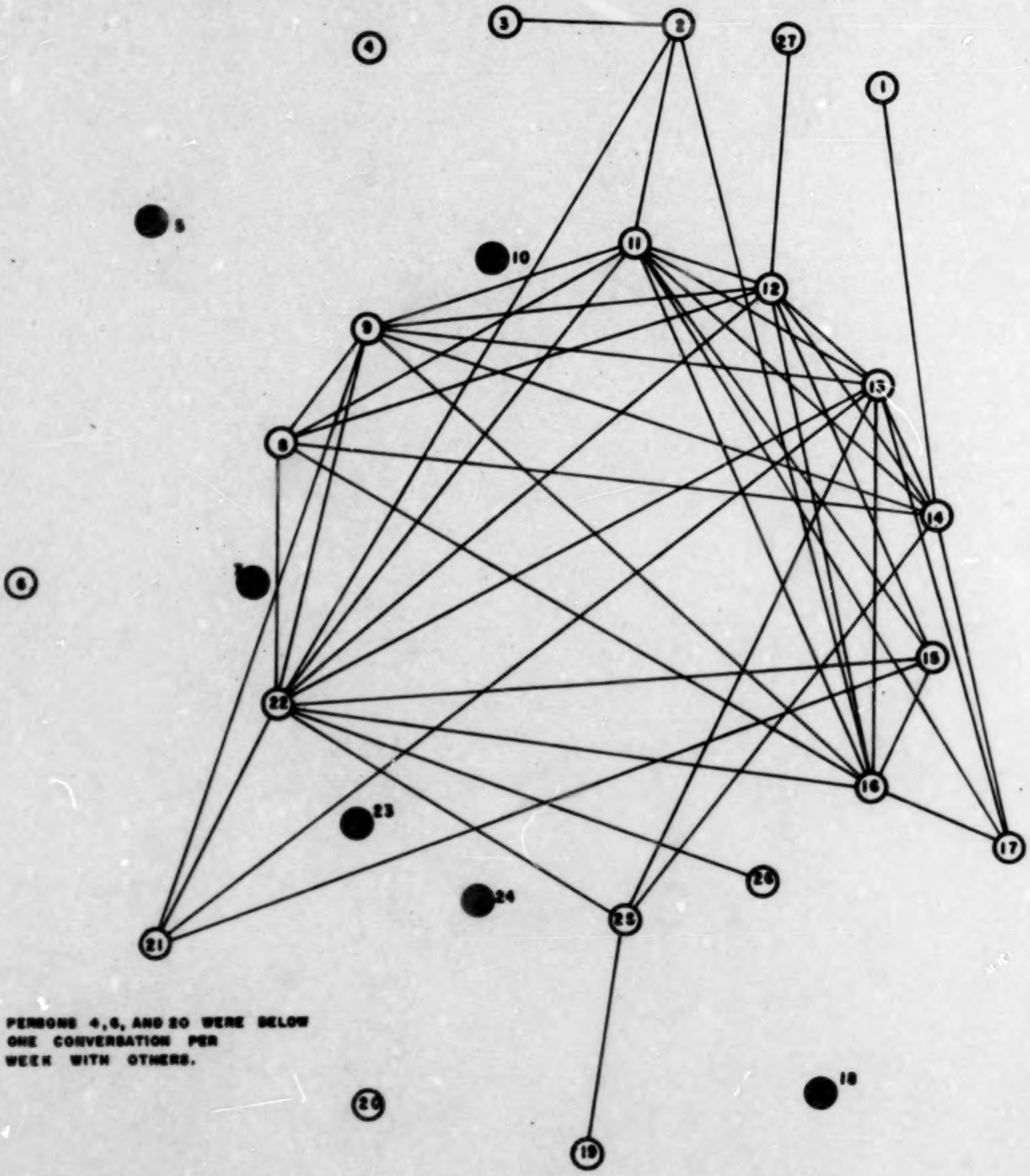
2 PERSONS WERE BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 488
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
ufr - si FALL '59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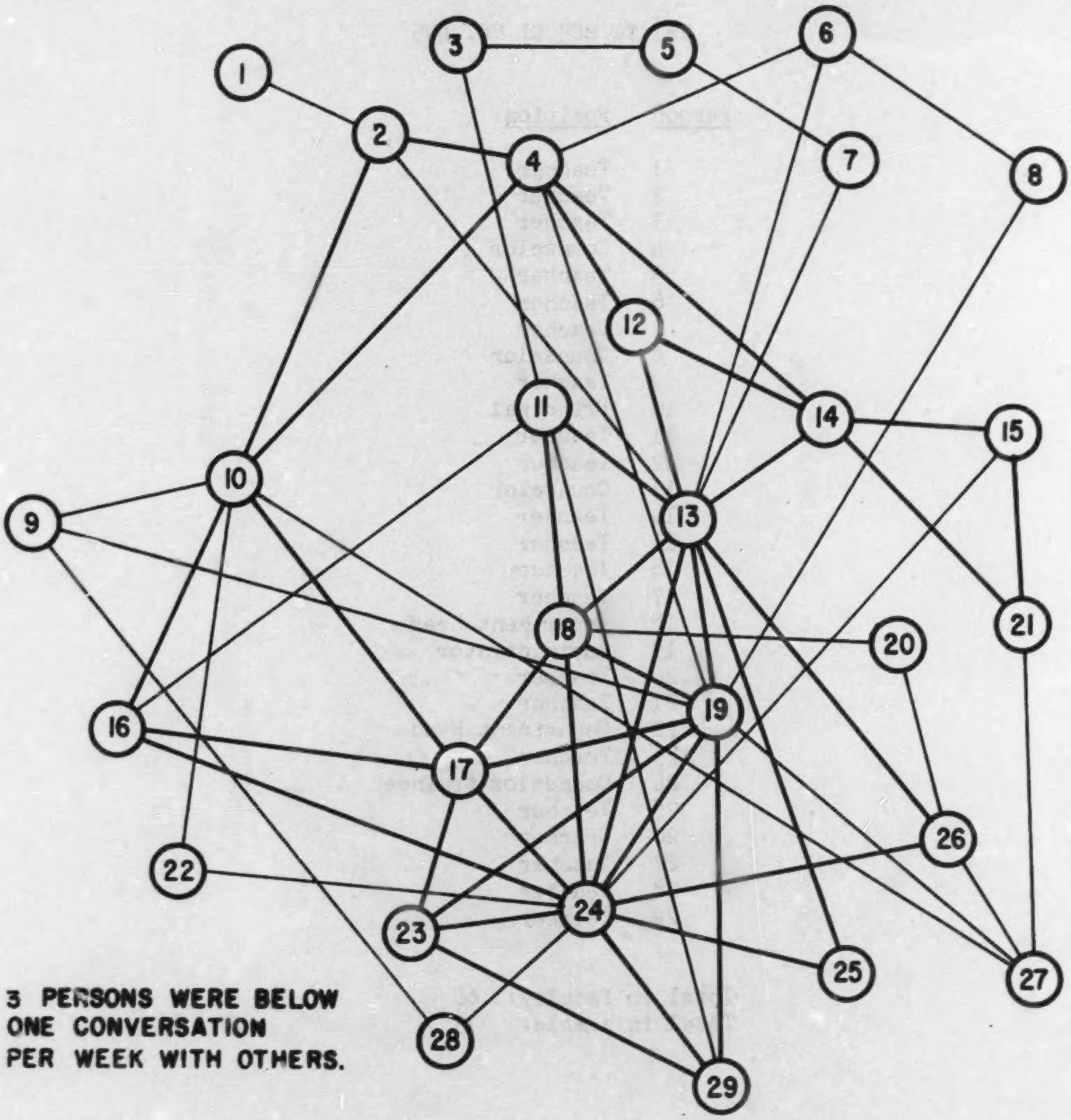
PERSONS 4, 6, AND 20 WERE BELOW
ONE CONVERSATION PER
WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 488
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
ufr-si FALL '60

KEY TO SCHOOL NO. 495

Person	Position
1	Teacher
2	Teacher
3	Teacher
4	Counselor
5	Teacher
6	Teacher
7	Teacher
8	Counselor
9	Teacher
10	Principal
11	Teacher
12	Teacher
13	Counselor
14	Teacher
15	Teacher
16	Teacher
17	Teacher
18	Department head
19	Administrator
20	Teacher
21	Teacher
22	Department head
23	Teacher
24	Counselor trainee
25	Teacher
26	Teacher
27	Teacher
28	Teacher
29	Teacher

Total in faculty: 68
Total in sample: 33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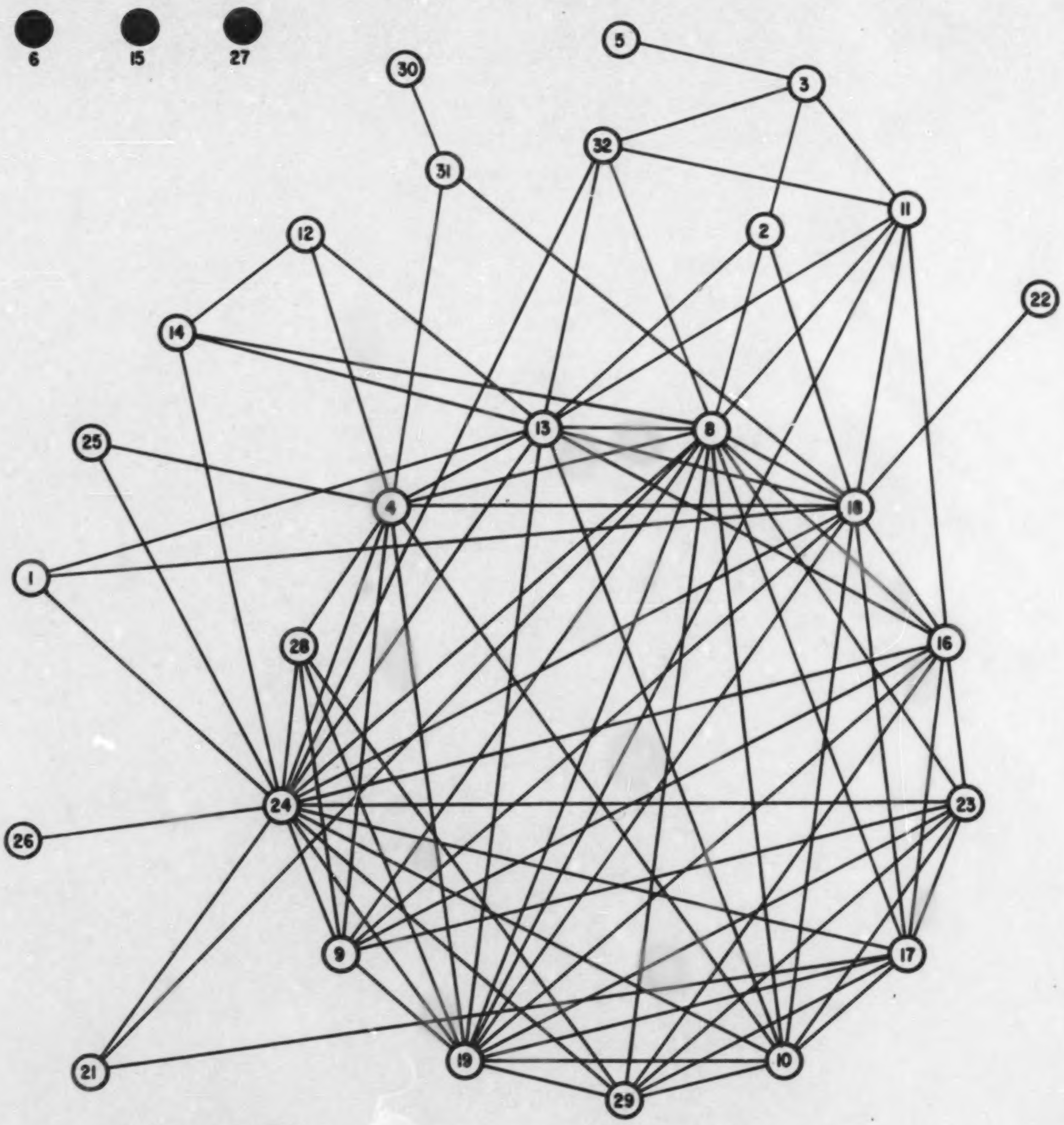
3 PERSONS WERE BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 495
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59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3 PERSONS WERE BELOW
ONE CONVERSATION PER
WEEK WITH OTHERS,
INCLUDING 7 AND 20.

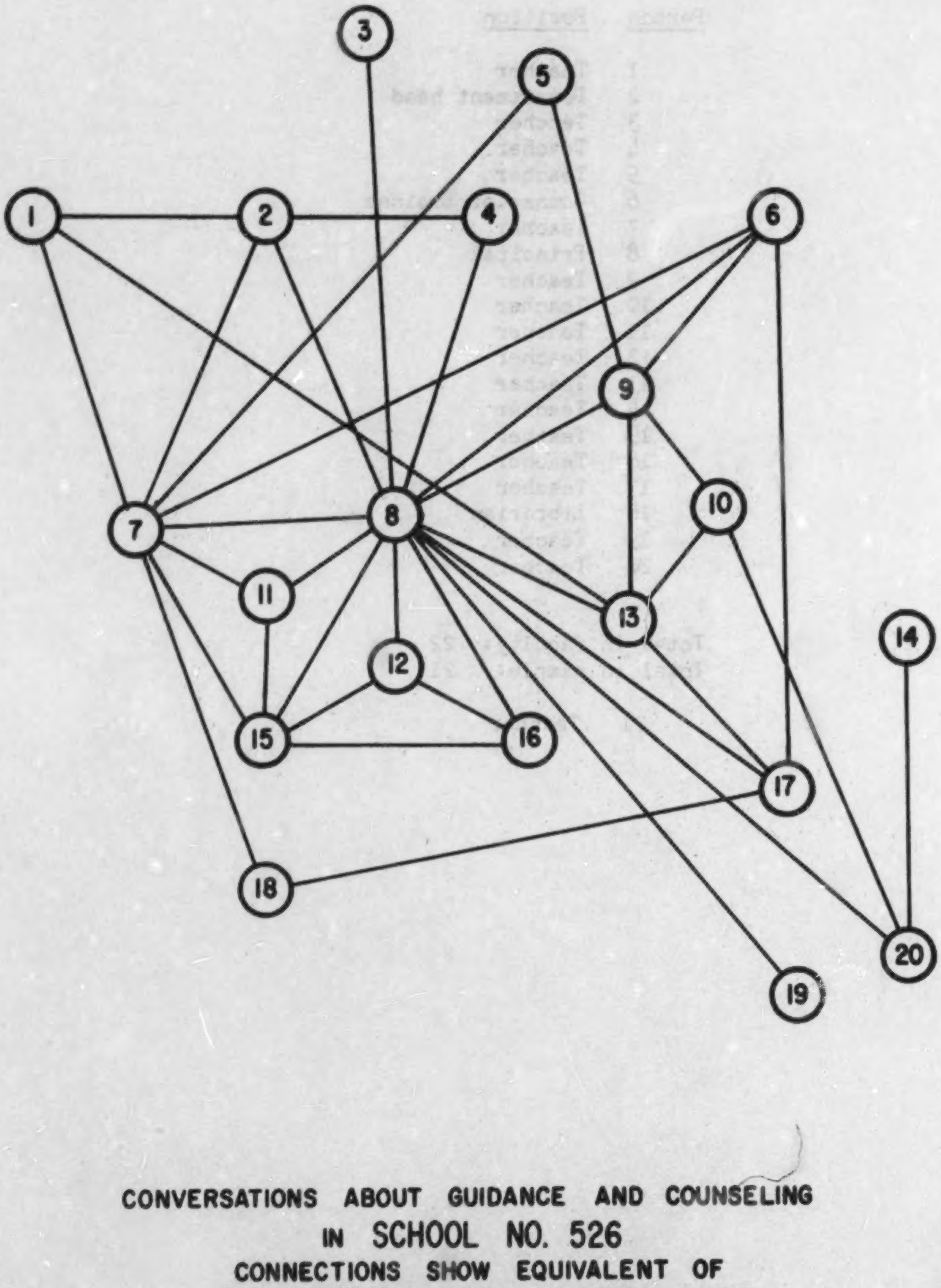
CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 495
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '60

KEY TO SCHOOL NO. 526

Person	Position
1	Teacher
2	Department head
3	Teacher
4	Teacher
5	Teacher
6	Counselor trainee
7	Teacher
8	Principal
9	Teacher
10	Teacher
11	Teacher
12	Teacher
13	Teacher
14	Teacher
15	Teacher
16	Teacher
17	Teacher
18	Librarian
19	Teacher
20	Teacher

Total in faculty: 22
Total in sample: 21

21	Teacher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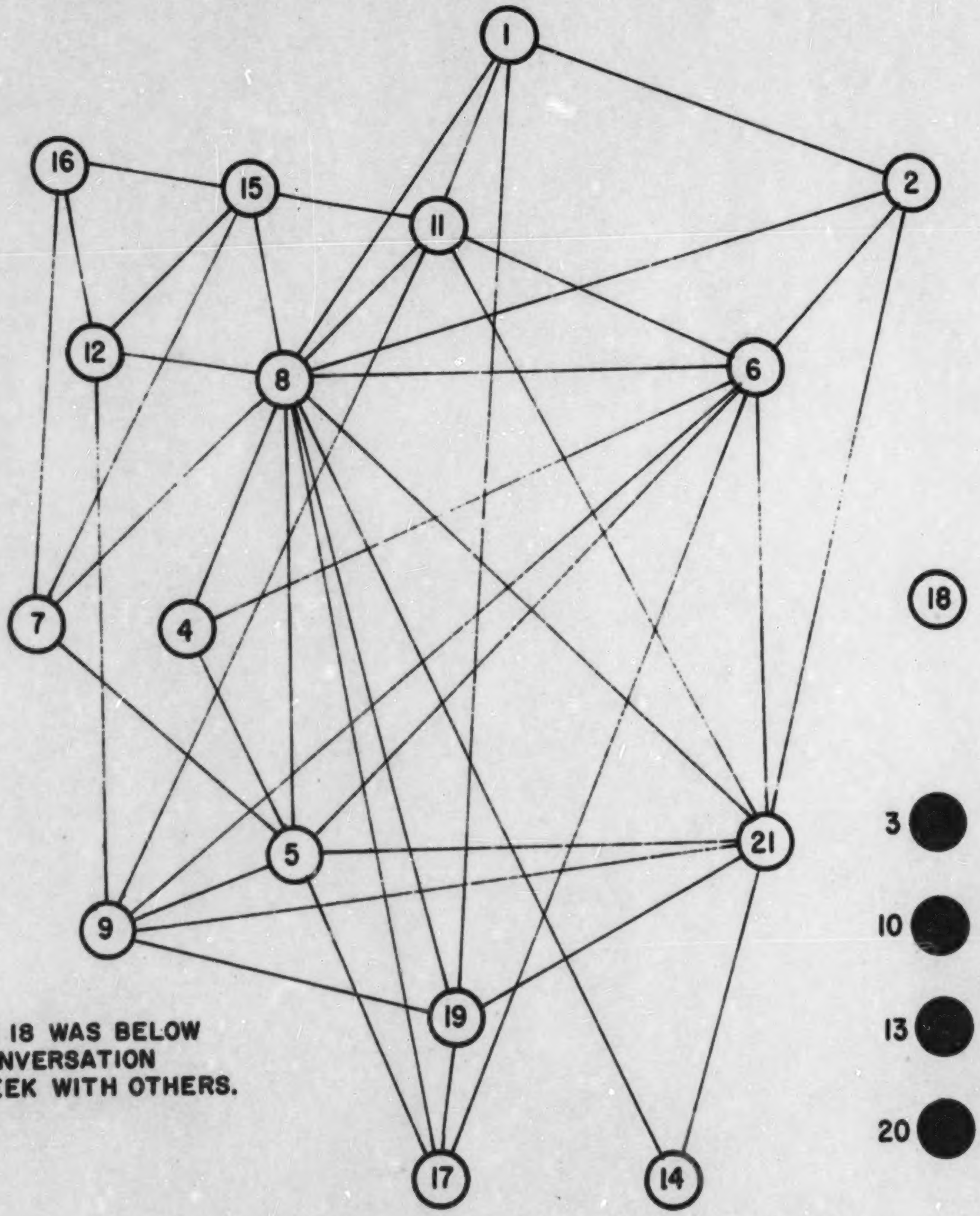
CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 526
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59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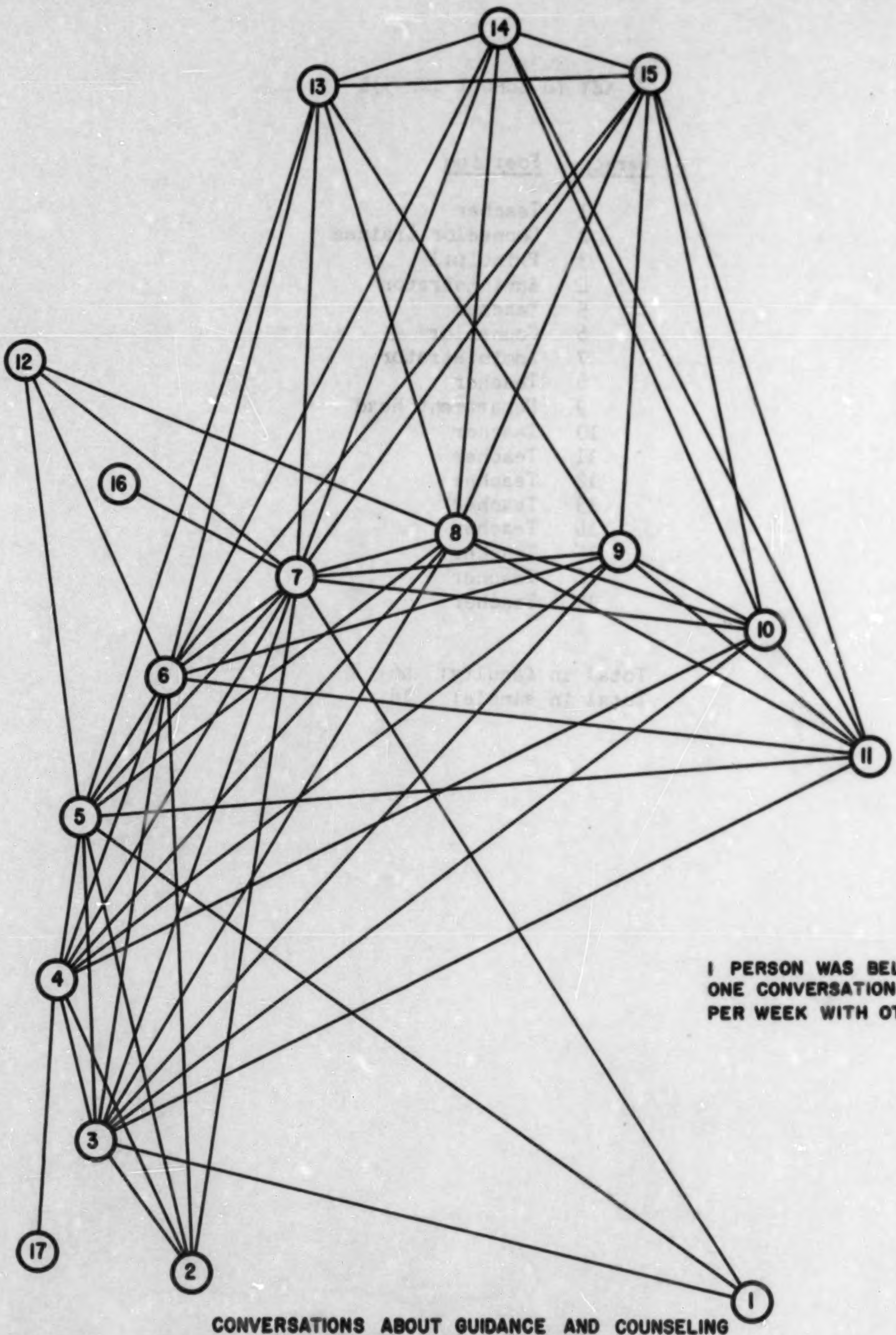
PERSON 18 WAS BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 526
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr - si FALL '60

KEY TO SCHOOL NO. 531

Person	Position
1	Teacher
2	Counselor trainee
3	Principal
4	Administrator
5	Teacher
6	Counselor
7	Administrator
8	Teacher
9	Department head
10	Teacher
11	Teacher
12	Teacher
13	Teacher
14	Teacher
15	Teacher
16	Teacher
17	Teacher

Total in faculty: 46
Total in sample: 18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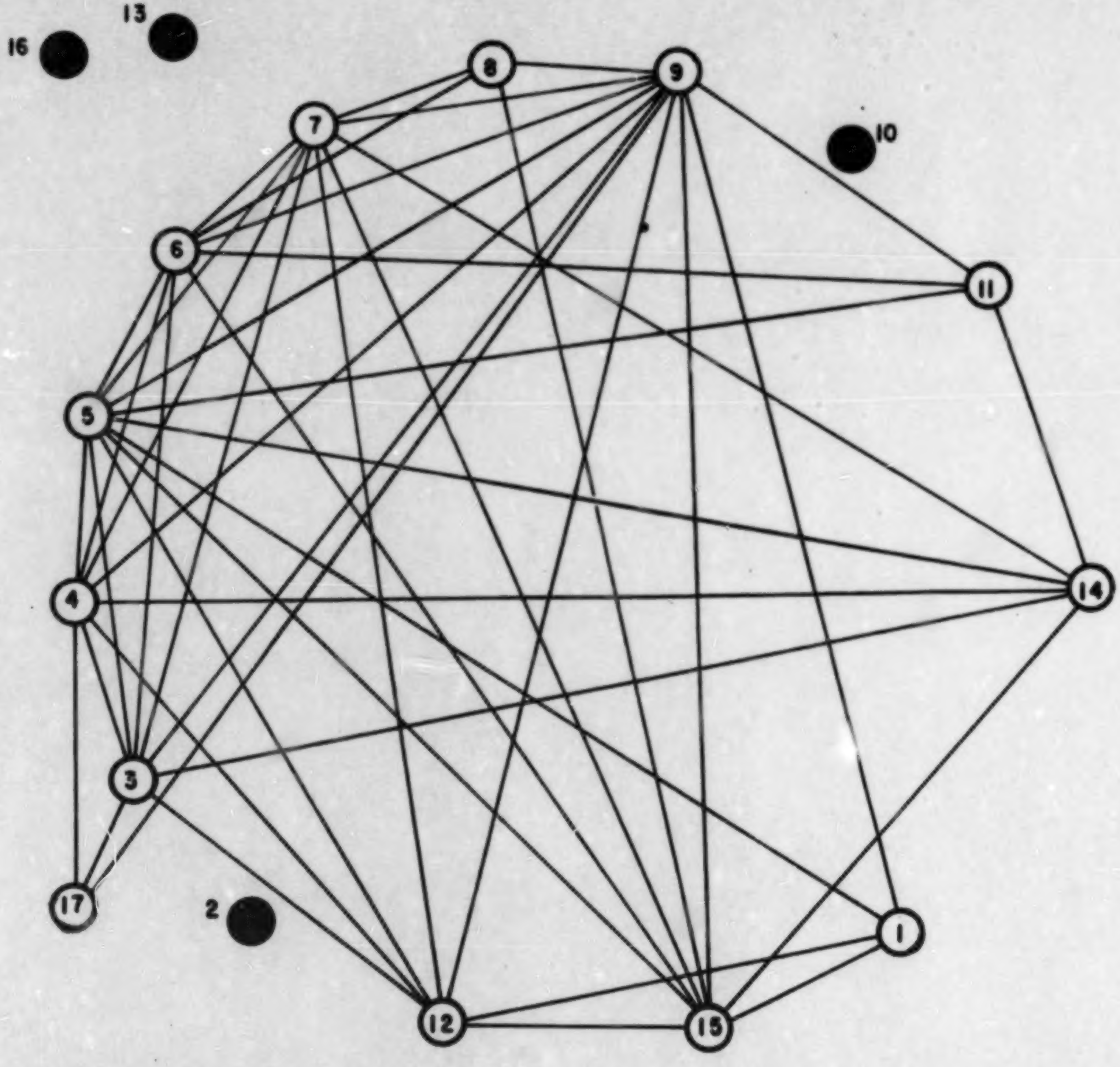
I PERSON WAS BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 531
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59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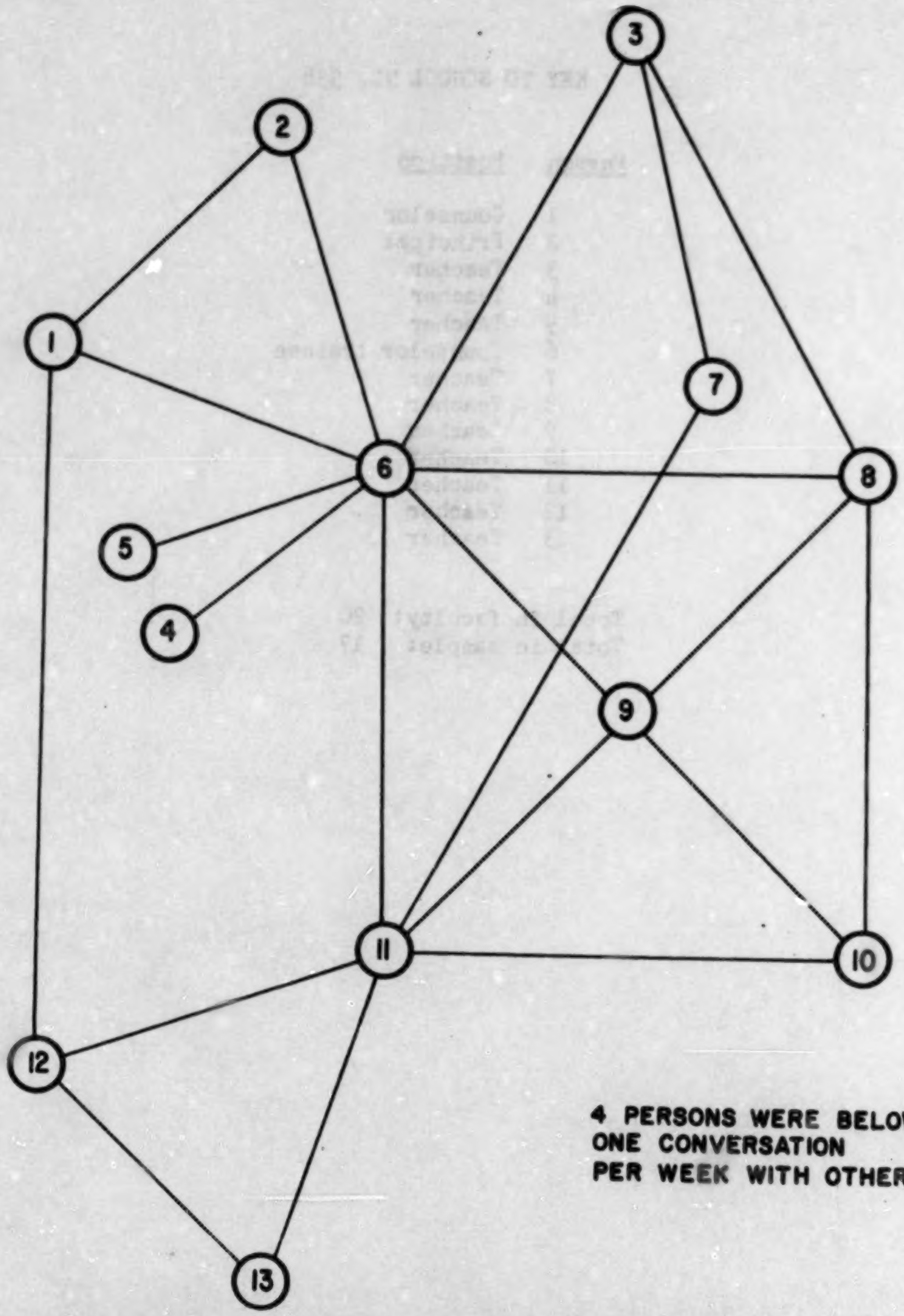
CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 531
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr — si FALL '60

KEY TO SCHOOL NC. 538

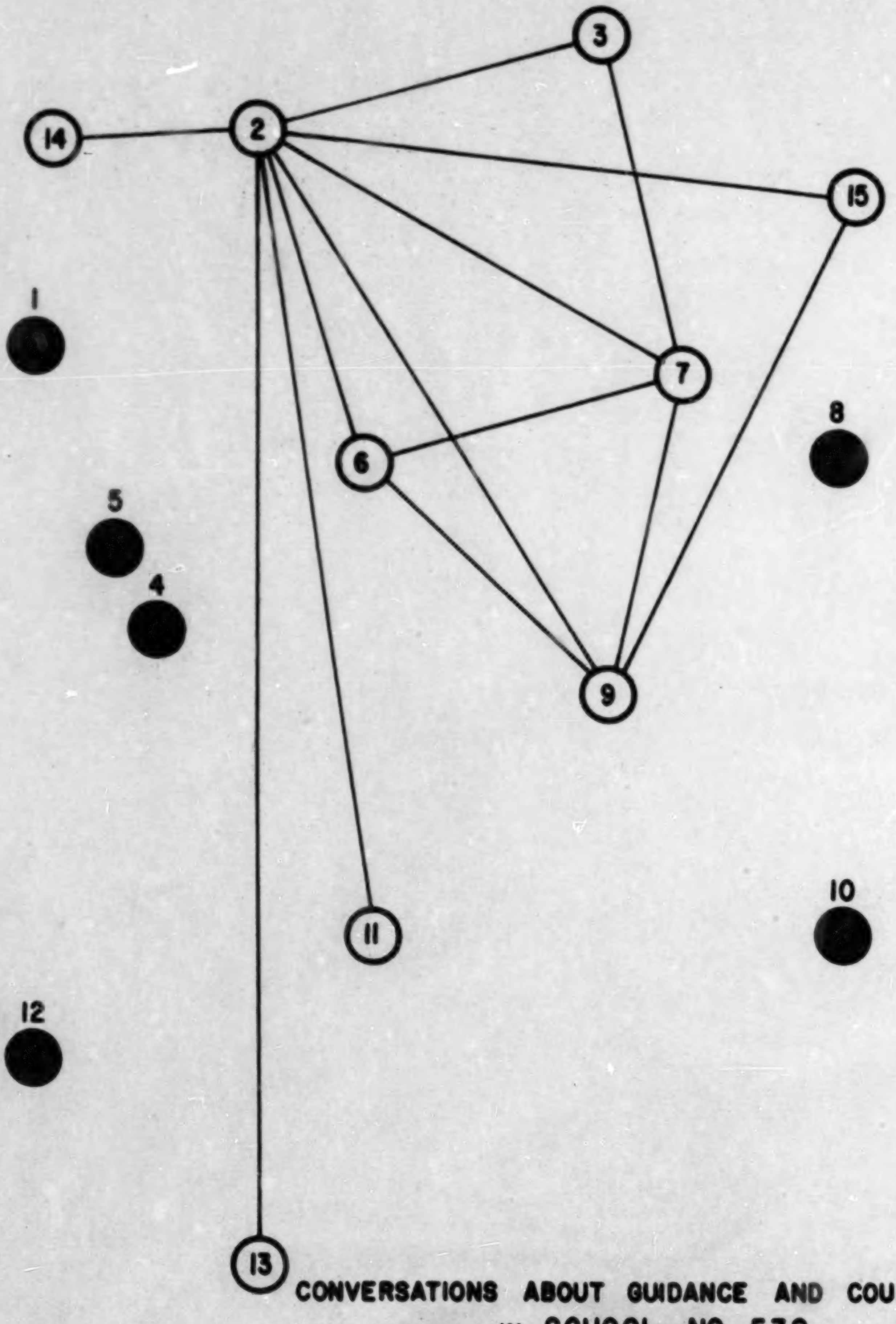
Person	Position
1	Counselor
2	Principal
3	Teacher
4	Teacher
5	Teacher
6	Counselor trainee
7	Teacher
8	Teacher
9	Teacher
10	Teacher
11	Teacher
12	Teacher
13	Teacher

Total in faculty: 20
Total in sample: 17



4 PERSONS WERE BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 538
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59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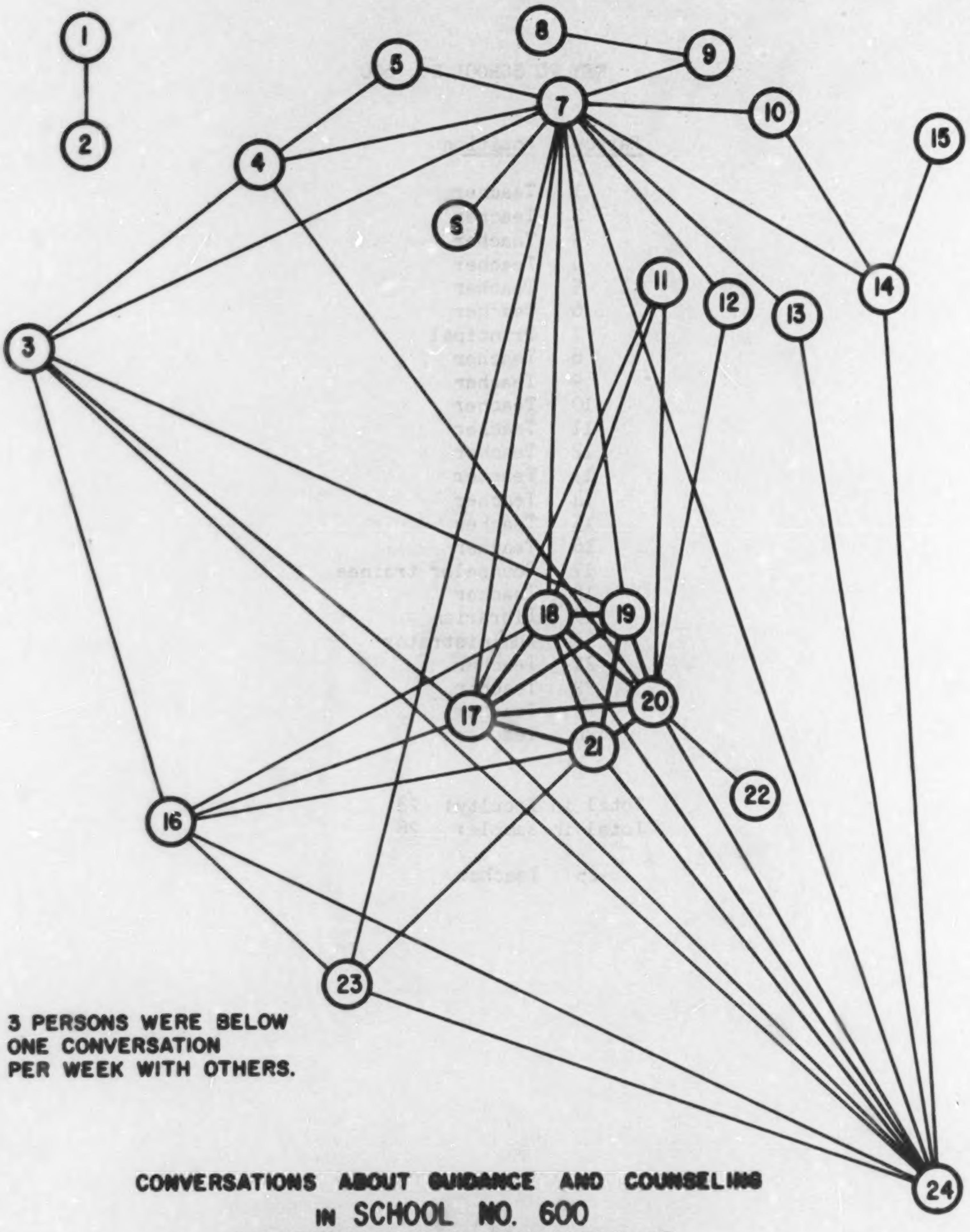
CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 538
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '60

KEY TO SCHOOL NO. 600

Person	Position
1	Teacher
2	Teacher
3	Teacher
4	Teacher
5	Teacher
6	Teacher
7	Principal
8	Teacher
9	Teacher
10	Teacher
11	Teacher
12	Teacher
13	Teacher
14	Teacher
15	Teacher
16	Teacher
17	Counselor trainee
18	Teacher
19	Librarian
20	Administrator
21	Teacher
22	Teacher
23	Teacher
24	Teacher

Total in faculty: 28
Total in sample: 28

25	Teacher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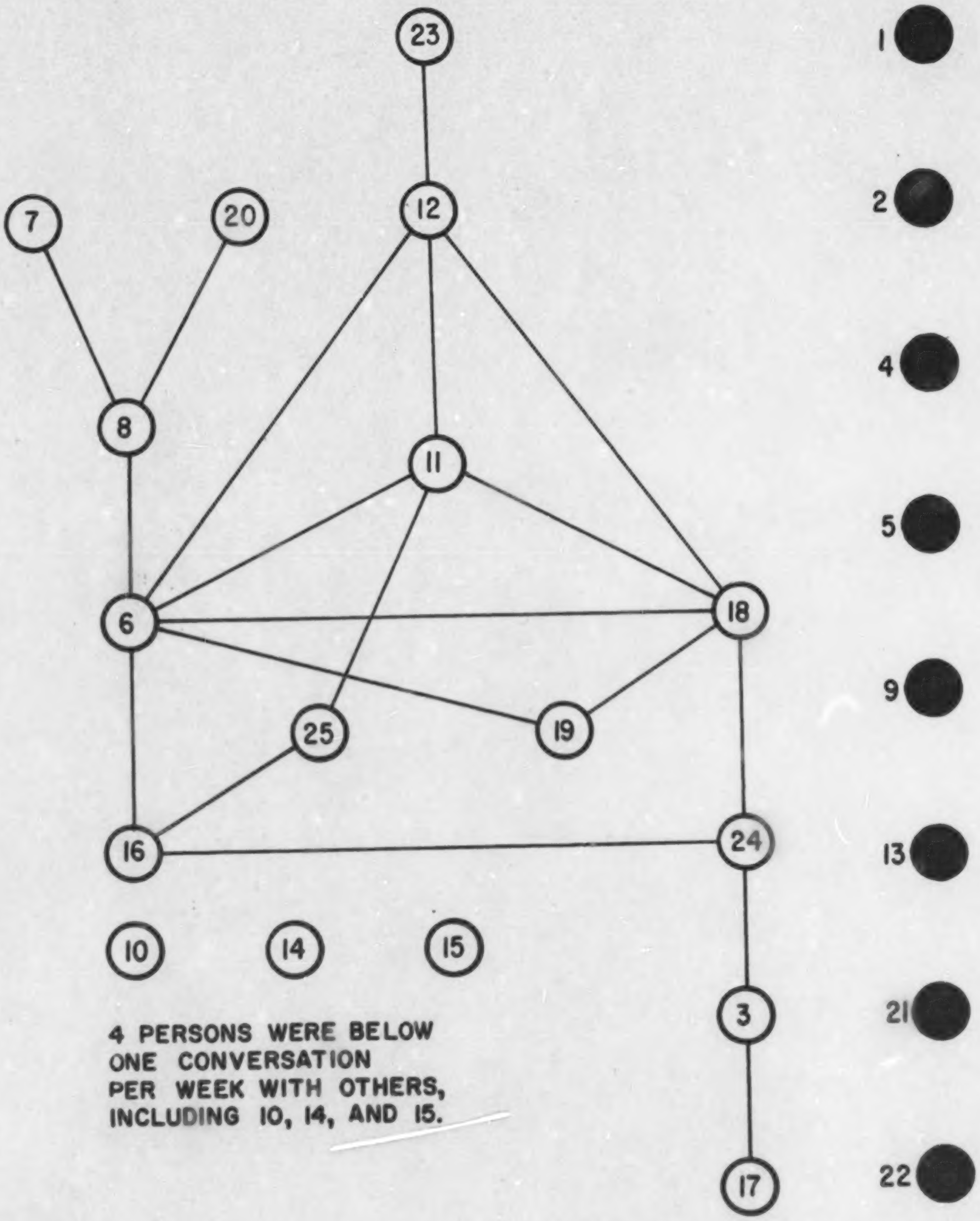
3 PERSONS WERE BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 600
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '50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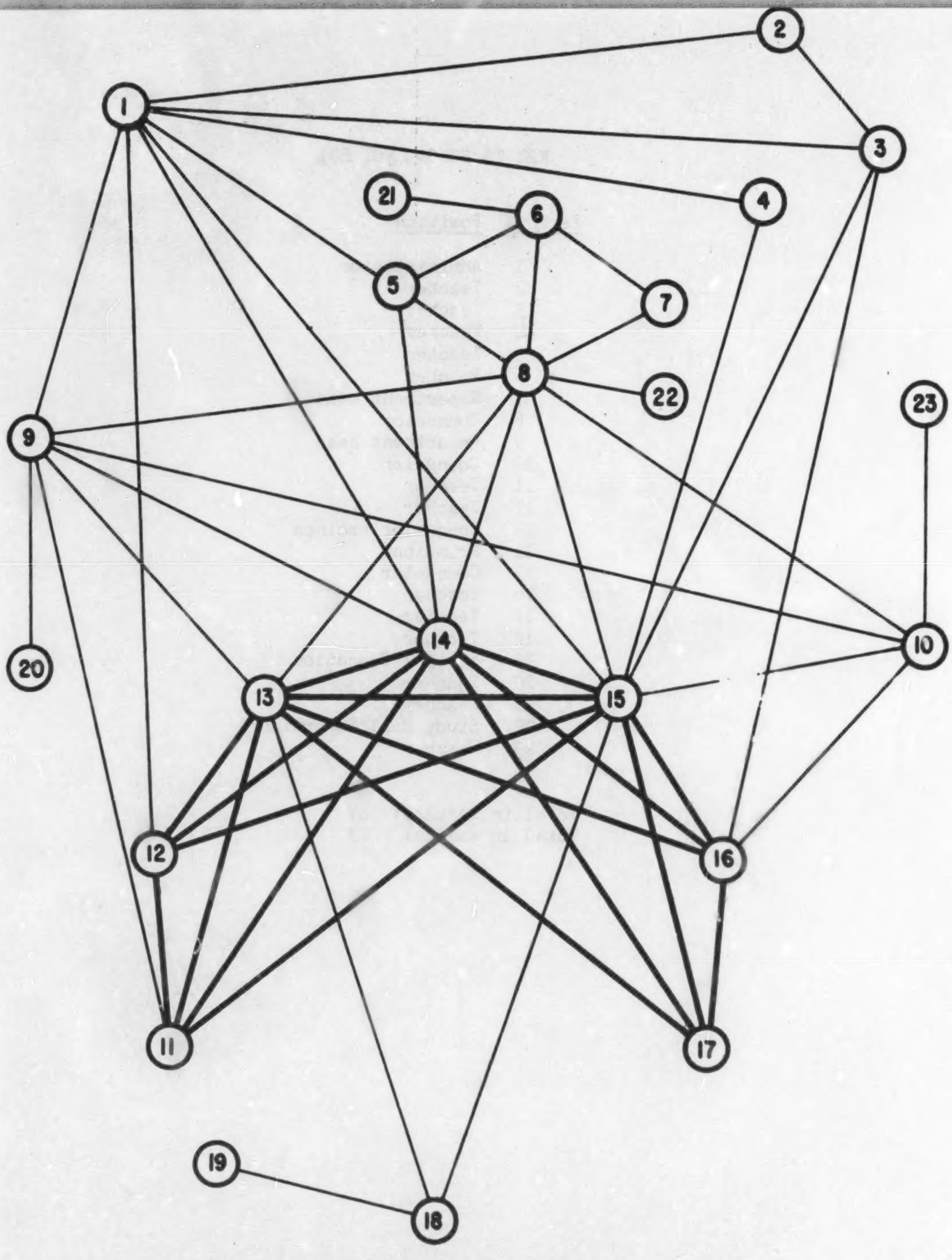
4 PERSONS WERE BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS,
INCLUDING 10, 14, AND 15.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 600
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '60

KEY TO SCHOOL NO. 601

Person	Position
1	Administrator
2	Teacher
3	Teacher
4	Teacher
5	Teacher
6	Teacher
7	Department head
8	Counselor
9	Department head
10	Counselor
11	Teacher
12	Teacher
13	Counselor trainee
14	Principal
15	Counselor
16	Teacher
17	Teacher
18	Teacher
19	Special Education
20	Teacher
21	Teacher
22	Study Hall Supervisor
23	Teacher

Total in faculty: 47
Total in sample: 23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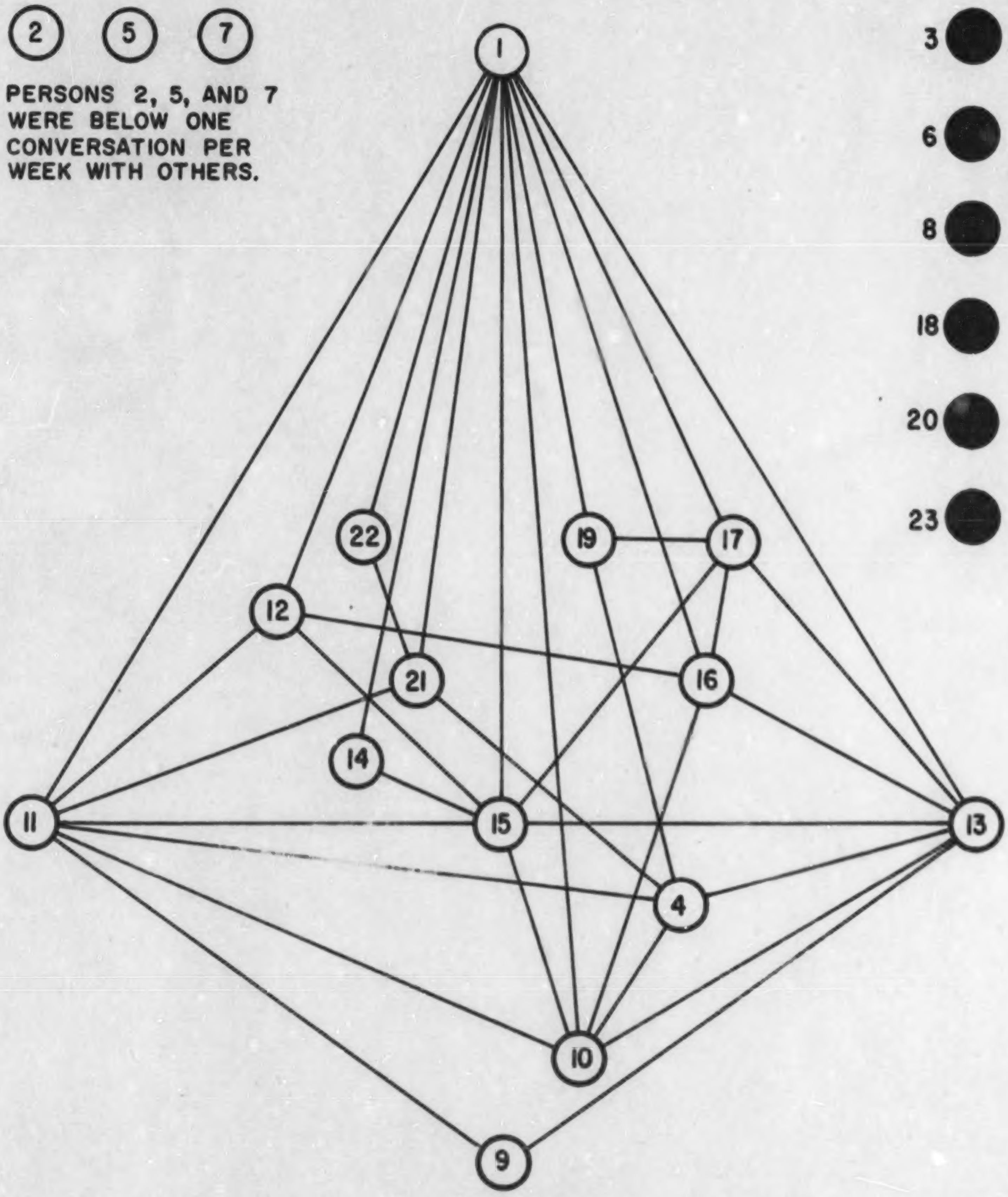
CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 601
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59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PERSONS 2, 5, AND 7 WERE BELOW ONE CONVERSATION PER WEEK WITH OTHERS.

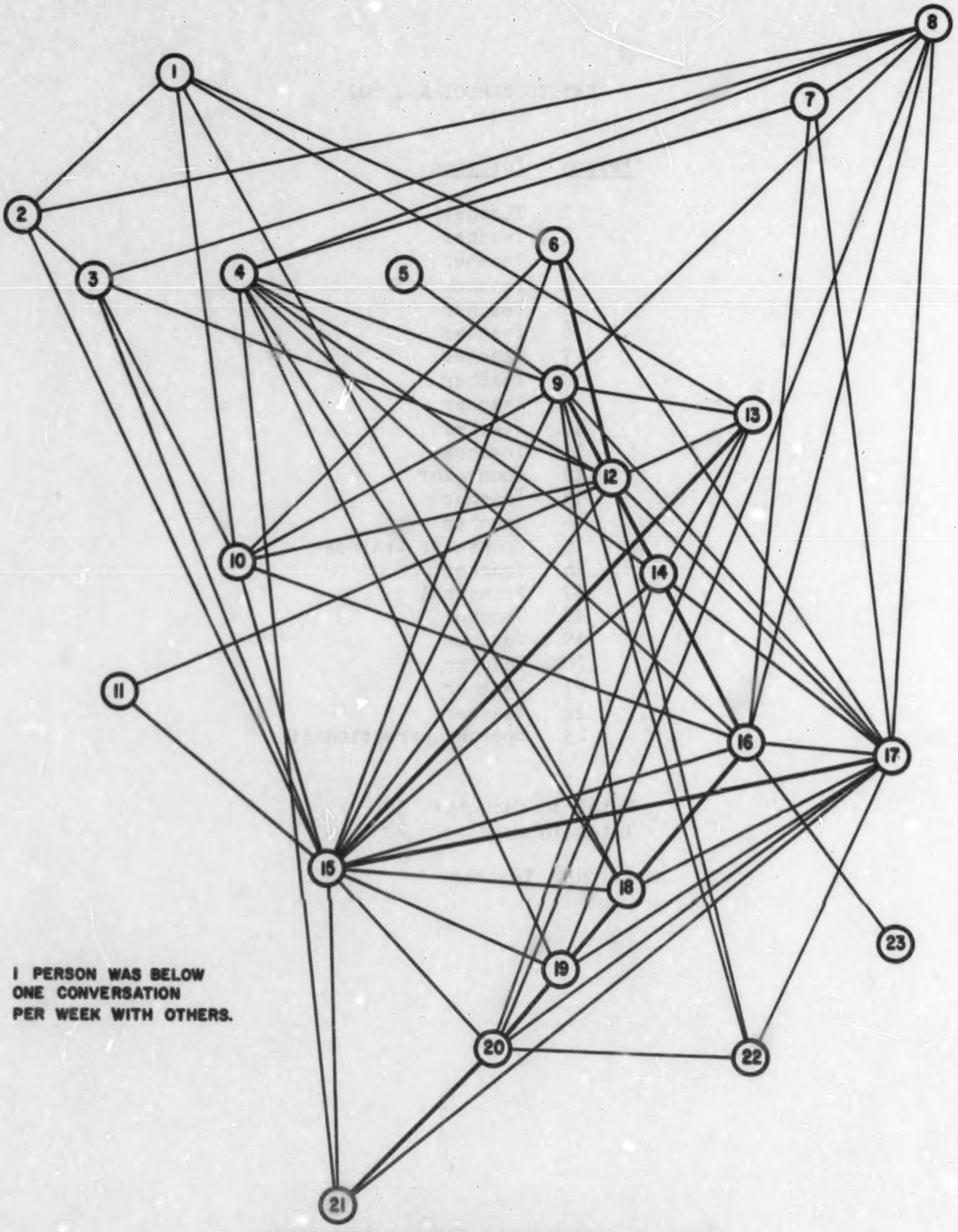
CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 601
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr - si FALL '60

KEY TO SCHOOL NO. 602

Person	Position
1	Teacher
2	Teacher
3	Teacher
4	Teacher
5	Teacher
6	Teacher
7	Teacher
8	Teacher
9	Teacher
10	Teacher
11	Teacher
12	Counselor
13	Teacher
14	Teacher
15	Counselor trainee
16	Teacher
17	Principal
18	Teacher
19	Teacher
20	Teacher
21	Teacher
22	Teacher
23	Speech correctionist

Total in faculty: 39
Total in sample: 22

24 Teacher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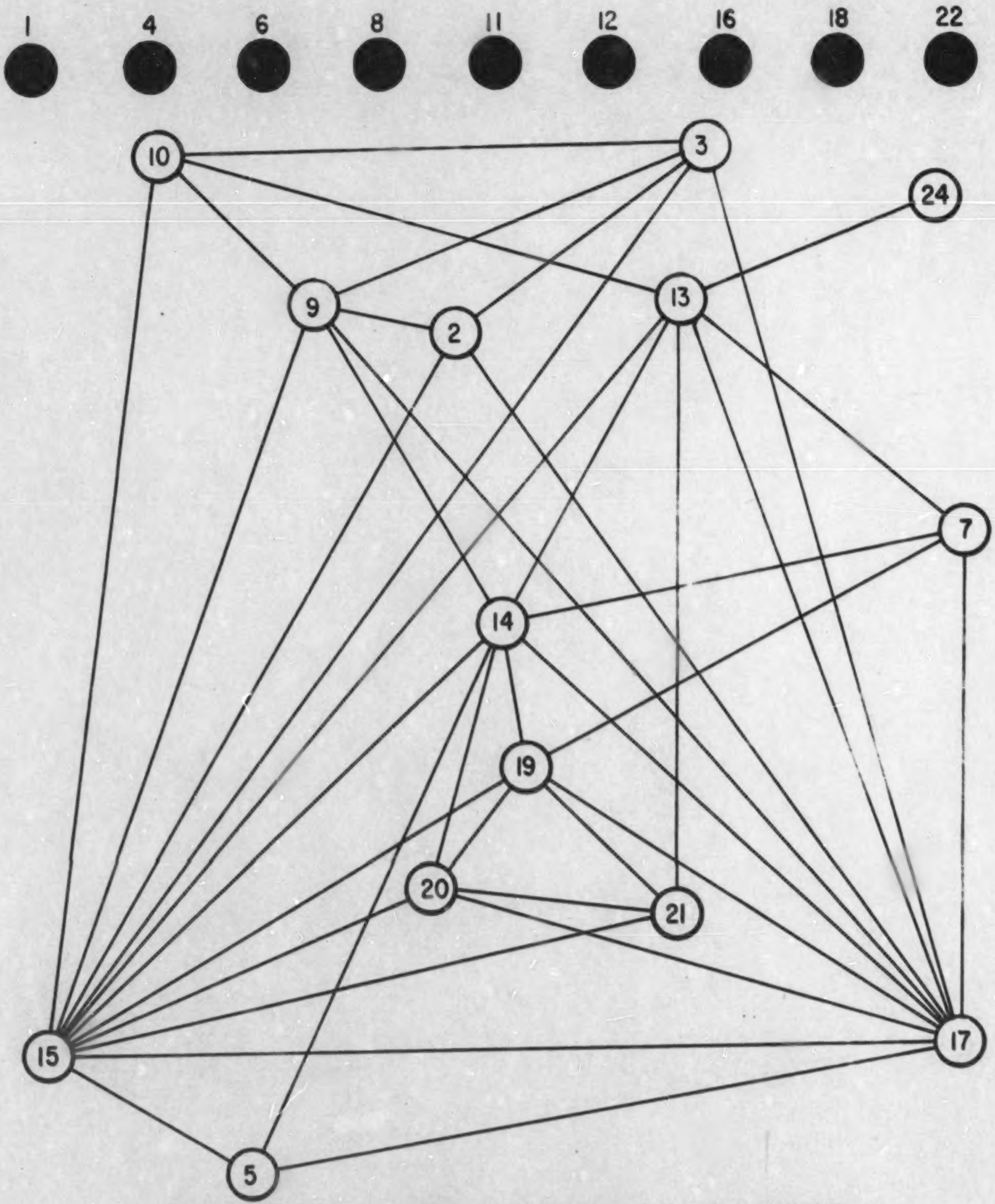
I PERSON WAS BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 602
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59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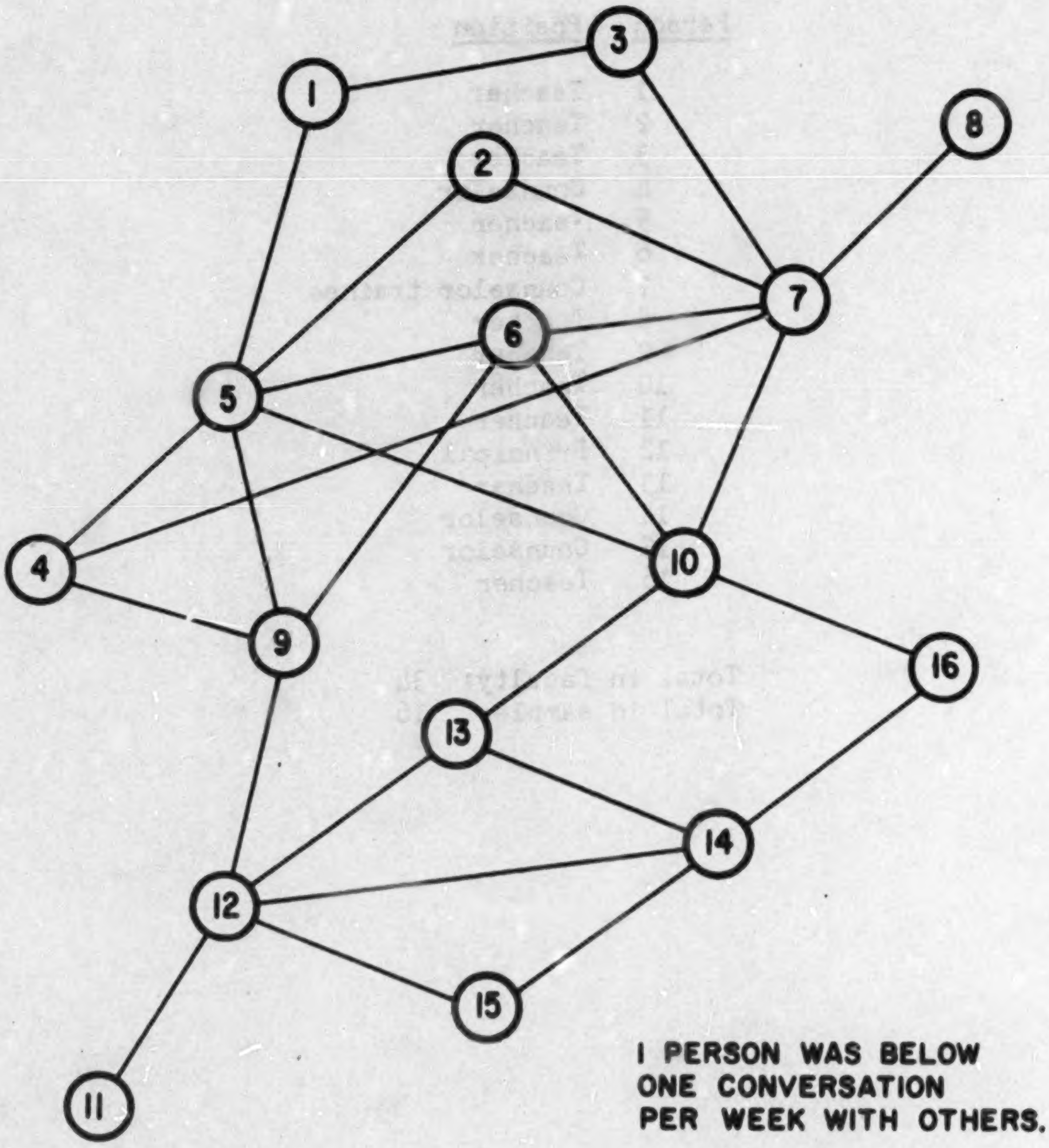
CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 602
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '60

KEY TO SCHOOL NO. 603

Person	Position
1	Teacher
2	Teacher
3	Teacher
4	Counselor
5	Teacher
6	Teacher
7	Counselor trainee
8	Teacher
9	Teacher
10	Teacher
11	Teacher
12	Principal
13	Teacher
14	Counselor
15	Counselor
16	Teacher

Total in faculty: 34
Total in sample: 16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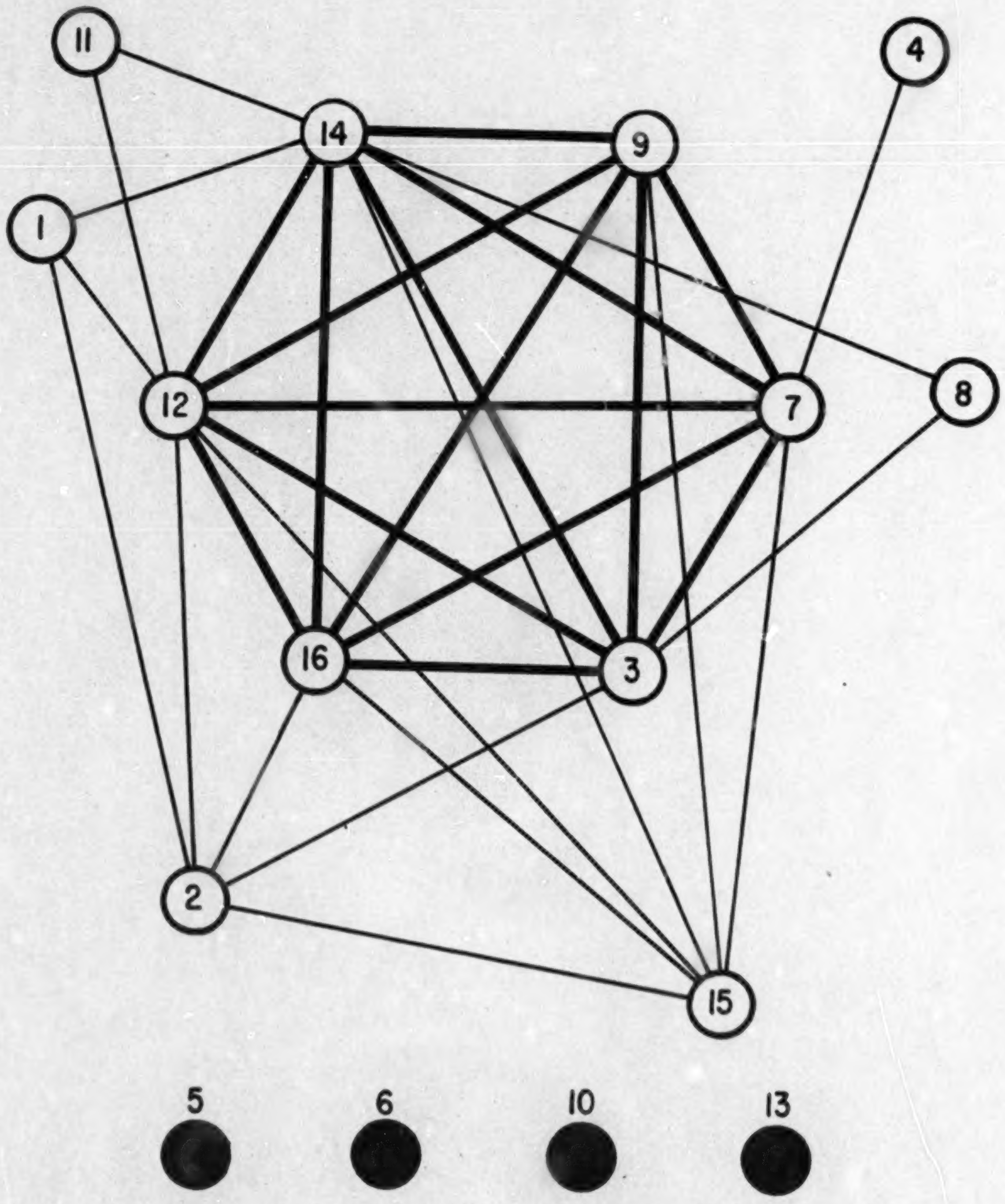
I PERSON WAS BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 603
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59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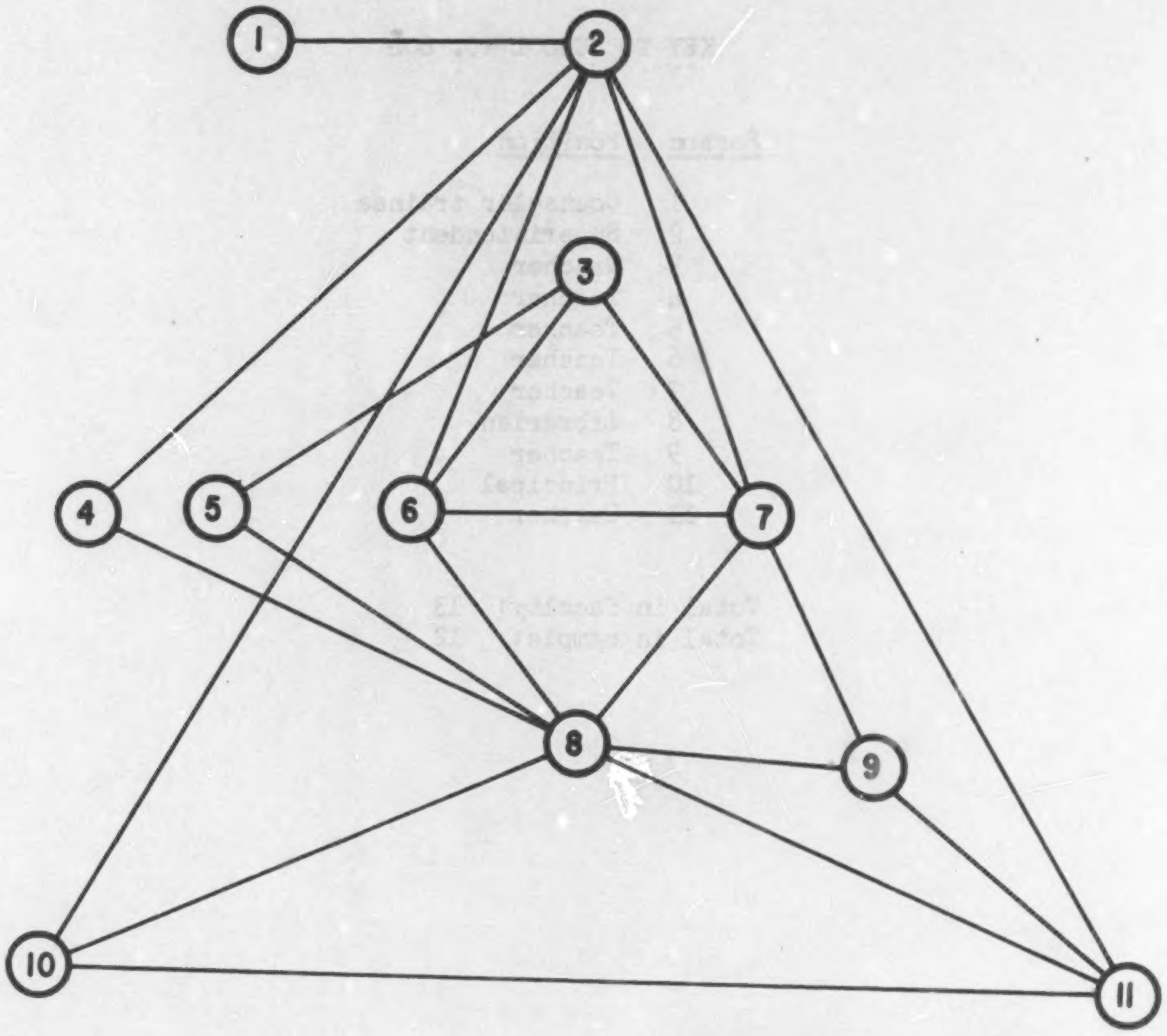
CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 603
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr - si FALL '60

KEY TO SCHOOL NO. 604

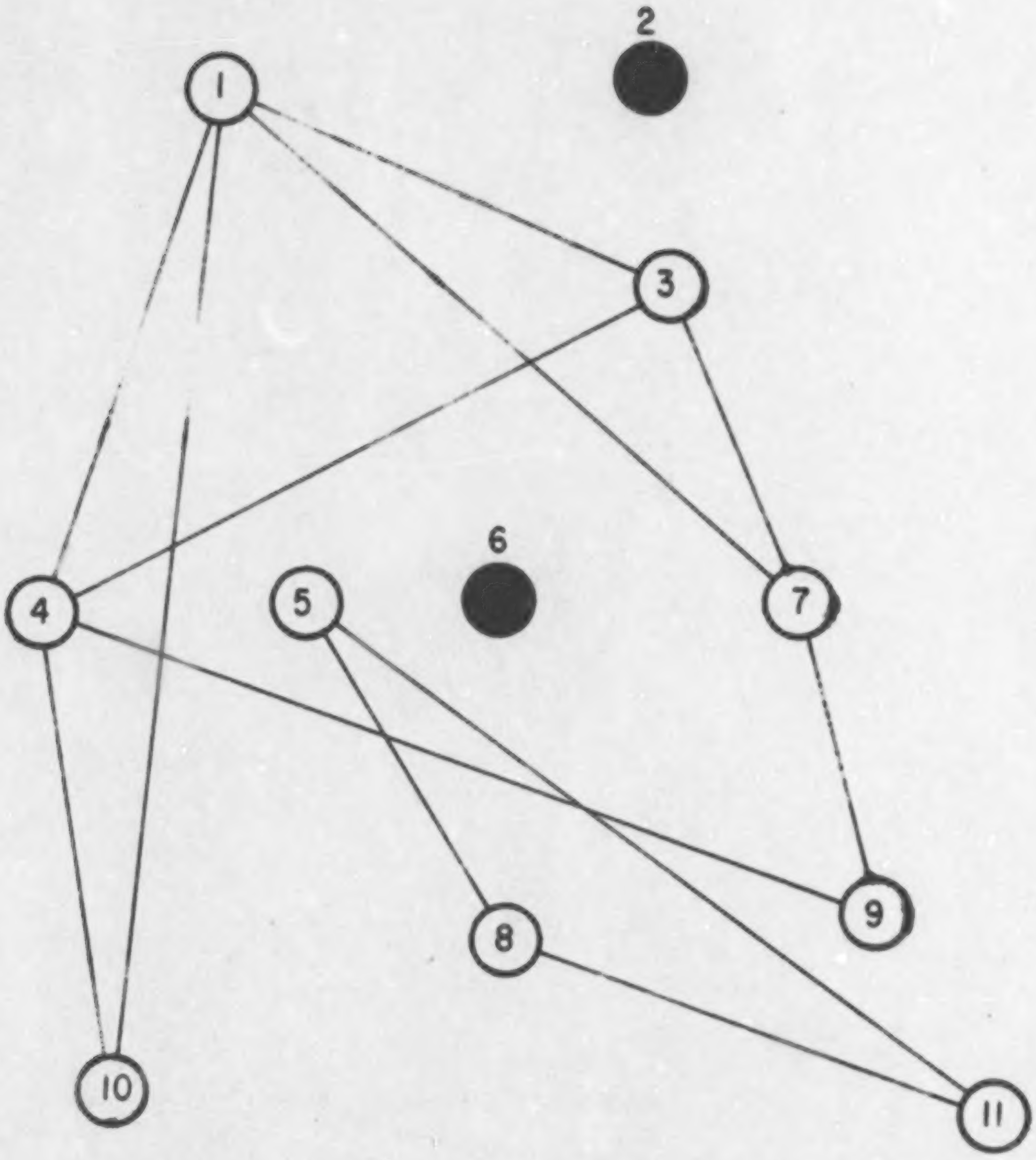
Person	Position
1	Counselor trainee
2	Superintendent
3	Teacher
4	Teacher
5	Teacher
6	Teacher
7	Teacher
8	Librarian
9	Teacher
10	Principal
11	Teacher

Total in faculty: 13
Total in sample: 12



I PERSON WAS BELOW
ONE CONVERSATION
PER WEEK WITH OTHERS.

CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 604
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '59



CONVERSATIONS ABOUT GUIDANCE AND COUNSELING
IN SCHOOL NO. 604
CONNECTIONS SHOW EQUIVALENT OF
ONE CONVERSATION PER WEEK OR MORE
utr-si FALL '60

APPENDIX M

Responses to Questionnaire on Student Problems

APPENDIX M

Responses to "Student Problems"

(For description of instrument see Appendix J.)

I. Percent of teachers, administrators, and counselors choosing each of six kinds of information in response to the several problems given in fall 1959.

Problem 1: "Joan McCauley has not turned in a single assignment ...."

Kind of info.	Choices of teachers			Choices of administrators			Choices of counselors		
	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
Achieve.	8.2	21.8	20.4	6.1	22.0	13.4	11.5	21.8	12.9
Intell.	13.9	13.9	13.2	9.2	12.0	16.5	17.2	14.9	10.7
Interests	35.8	18.9	15.6	30.6	12.0	28.9	23.0	16.1	23.5
Family	26.3	20.0	21.7	36.7	27.0	15.5	25.3	20.7	22.3
Worries	9.5	11.0	11.1	14.3	13.0	10.2	17.2	18.4	11.8
Pers'ty	6.3	14.4	18.0	3.1	14.0	15.5	5.8	8.1	18.8
Total	100	100	100	100	100	100	100	100	100
N	380	381	378	98	99	97	87	87	85

Problem 2: "Bill Walters tells you that he has applied to two ...."

Achieve.	11.9	23.8	26.1	14.0	25.0	20.0	10.2	25.8	23.8
Intell.	7.1	12.1	12.6	9.0	16.0	15.0	5.6	11.4	9.6
Interests	54.6	24.8	13.5	57.0	26.0	15.0	64.0	24.7	7.1
Family	18.2	16.1	14.5	15.0	10.0	22.0	14.6	15.7	23.8
Worries	2.9	5.8	8.6	1.0	2.0	9.0	0.0	6.7	13.1
Pers'ty	5.3	17.4	24.7	4.0	21.0	19.0	5.6	15.7	22.6
Total	100	100	100	100	100	100	100	100	100
N	379	379	372	101	101	100	89	89	84

Problem 3: "Thomas McElroy has been reported for tardiness ...."

Achieve.	8.1	12.8	22.8	5.0	16.0	27.8	5.7	16.1	20.5
Intell.	0.5	5.3	6.0	2.0	4.0	2.1	0.0	4.6	4.8
Interests	6.0	28.2	26.6	8.0	28.0	26.8	10.2	24.1	22.9
Family	75.1	9.9	8.0	74.0	12.0	8.2	67.0	19.6	3.6
Worries	1.6	13.1	11.6	4.0	13.0	13.4	4.6	18.4	16.9
Pers'ty	8.7	30.7	25.0	7.0	27.0	21.7	12.5	17.2	31.3
Total	100	100	100	100	100	100	100	100	100
N	381	375	364	100	100	97	88	87	83

Problem 4: "Doris is a shy, withdrawn girl who is always alone ...."

Kind of info.	Choices of teachers			Choices of administrators			Choices of counselors		
	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
Achieve.	2.1	1.5	3.7	1.0	2.0	5.1	1.2	1.2	4.8
Intell.	0.5	2.1	2.9	0.0	1.0	2.0	2.3	1.2	0.0
Interests	3.2	14.9	18.6	1.0	15.0	23.5	3.5	5.7	19.3
Family	31.3	18.8	33.0	35.0	21.0	25.5	27.9	29.1	27.7
Worries	28.7	35.0	19.2	30.0	37.0	18.4	26.7	43.0	15.7
Pers'ty	34.2	27.7	22.6	33.0	24.0	25.5	38.4	19.8	32.5
Total	100	100	100	100	100	100	100	100	100
N	383	383	376	100	100	98	86	86	83

Problem 5: "John is a bright student and does well in every class....."

Achieve.	7.2	19.2	22.0	9.2	18.7	27.2	7.1	18.1	16.9
Intell.	5.9	12.6	14.3	3.1	14.6	10.9	9.6	16.9	10.3
Interests	52.3	24.2	13.1	57.1	20.8	10.9	53.6	19.3	19.5
Family	3.2	4.8	12.0	2.0	4.2	20.6	1.2	1.2	15.6
Worries	8.0	11.8	16.4	3.1	6.2	21.7	7.1	10.8	26.0
Pers'ty	23.4	27.4	21.7	25.5	35.5	8.7	21.4	33.7	11.7
Total	100	100	100	100	100	100	100	100	100
N	375	372	359	98	96	92	84	83	77

Problem 6: "Virginia Smith's parents want their daughter ...."

Achieve.	15.3	29.8	33.6	25.5	25.5	30.9	8.2	32.9	34.6
Intell.	8.2	25.4	23.9	12.3	37.7	14.4	11.6	21.2	29.6
Interests	62.3	18.3	14.1	51.0	17.4	26.8	59.3	22.3	13.6
Family	9.6	8.5	10.2	6.1	6.1	6.2	15.1	14.1	3.7
Worries	1.6	4.1	2.5	1.0	1.0	5.2	3.5	0.0	6.2
Pers'ty	2.5	13.4	15.7	4.1	12.3	16.5	2.3	9.5	12.3
Total	100	100	100	100	100	100	100	100	100
N	366	366	363	98	98	97	86	85	81

Problem 7: "Jim has been sent to the principal's office by ...."

Achieve.	6.2	12.3	17.0	5.0	12.0	20.8	4.6	11.6	14.5
Intell.	2.4	5.2	7.3	5.0	6.0	4.2	3.5	5.8	10.8
Interests	3.0	12.0	15.3	1.0	13.0	13.5	1.1	12.8	15.6
Family	50.4	17.8	18.1	54.0	13.0	15.6	40.2	23.3	15.7
Worries	10.5	24.6	20.6	10.0	24.0	24.0	18.4	22.1	22.9
Pers'ty	27.5	27.6	21.7	25.0	32.0	21.9	32.2	24.4	20.5
Total	100	100	100	100	100	100	100	100	100
N	371	366	359	99	99	96	87	86	83

Problem 8: "Glen's teachers report that the boy comes to ...."

Kinds of info.	Choices of teachers			Choices of administrators			Choices of counselors		
	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
Achieve.	1.9	12.0	21.9	3.1	15.8	17.4	6.8	7.1	20.2
Intell.	0.8	7.4	7.9	4.1	2.1	7.6	1.1	4.7	12.8
Interests	12.6	38.8	22.2	6.1	44.2	28.2	12.5	38.8	21.5
Family	81.5	9.0	4.8	82.7	8.5	4.4	68.1	12.9	10.1
Worries	1.3	15.6	13.1	2.0	14.7	10.9	6.8	16.5	17.7
Pers'ty	1.9	17.2	30.1	2.0	14.7	31.5	4.7	20.0	17.7
Total	100	100	100	100	100	100	100	100	100
N	373	366	352	98	95	92	88	85	79

Problem 9: "George Merwin is a transfer student new to the ...."

Achieve.	19.0	23.4	12.8	24.0	22.9	10.6	13.8	24.1	10.6
Intell.	34.7	21.2	12.5	30.2	28.1	13.8	31.0	21.8	14.1
Interests	4.8	15.0	25.7	1.0	12.5	25.5	2.3	5.7	17.7
Family	9.9	13.2	18.0	9.4	11.5	17.0	3.5	17.2	21.2
Worries	22.8	15.6	14.4	25.0	15.6	17.0	35.6	10.5	17.6
Pers'ty	8.8	11.6	16.6	10.4	9.4	16.1	13.8	20.7	18.8
Total	100	100	100	100	100	100	100	100	100
N	373	372	361	96	96	94	87	87	85

Problem 10: "Kay Johnson is enrolled in the college preparatory ...."

Achieve.	5.7	16.7	18.1	4.0	21.3	20.6	11.6	8.2	12.0
Intell.	20.0	23.5	18.6	25.5	18.1	20.6	14.0	23.2	21.7
Interests	45.4	27.6	18.3	50.0	26.6	20.6	44.2	29.1	16.9
Family	21.4	10.3	20.6	14.9	11.7	13.0	24.4	25.6	22.9
Worries	1.3	3.0	6.1	1.6	4.2	3.5	2.3	5.8	9.6
Pers'ty	6.2	18.9	18.3	4.0	18.1	21.7	3.5	8.1	16.9
Total	100	100	100	100	100	100	100	100	100
N	370	370	360	94	94	92	86	86	83

Problem 11: "Andy Wilson causes trouble for every teacher ...."

Achieve.	9.0	11.0	14.9	11.6	12.6	9.5	3.4	14.8	15.5
Intell.	12.5	12.5	10.0	14.7	15.8	8.4	21.6	12.5	9.5
Interests	7.3	18.2	21.3	12.6	20.0	25.3	8.0	14.8	23.8
Family	37.4	19.0	16.3	32.6	14.7	24.2	25.0	22.7	17.9
Worries	12.7	19.3	18.0	14.7	17.9	11.6	15.9	19.3	15.5
Pers'ty	21.1	19.3	19.5	13.8	19.0	21.0	26.1	15.9	17.8
Total	100	100	100	100	100	100	100	100	100
N	369	368	362	95	95	95	88	88	84

Problem 12: "Jill's teachers report that the girl is ...."

Kind of info.	Choices of teachers			Choices of administrators			Choices of counselors		
	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
Achieve.	4.7	10.0	13.1	6.3	14.9	12.8	2.3	11.4	10.6
Intell.	6.9	9.4	6.5	8.3	6.4	12.8	10.3	5.7	10.6
Interests	1.4	8.6	12.8	3.1	2.1	8.5	5.7	7.9	10.6
Family	36.4	20.7	22.2	37.5	26.6	18.1	23.8	27.3	30.6
Worries	31.8	25.9	17.3	31.2	34.0	13.8	35.2	30.7	10.6
Pers'ty	18.8	25.4	28.1	13.6	16.0	34.0	22.7	17.0	27.0
Total	100	100	100	100	100	100	100	100	100
N	362	362	352	96	94	94	88	88	85

II. Percentages of teachers, administrators, and counselors choosing indicated types of information in fall of 1960.

Problem CS: "At the beginning of the school year the principal asks you whether, in your judgment, Marian Sanders ...."

Type of info.	Choices of teachers			Choices of administrators			Choices of counselors		
	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
Achieve.	49.7	34.3	13.9	48.8	36.1	12.8	53.9	31.3	15.6
Intell.	38.3	42.9	17.2	43.0	33.7	19.8	36.9	40.6	17.2
Interests	11.4	22.5	60.8	8.2	27.9	58.1	7.7	28.1	62.5
Other	0.6	0.3	8.1	0.0	2.3	9.3	1.5	0.0	4.7
Total	100	100	100	100	100	100	100	100	100
N	324	324	324	86	86	86	65	64	64

Problem 9: "George Merwin is a transfer student new to the ...."

Achieve.	16.4	14.3	6.2	26.7	10.6	9.4	21.9	20.3	7.8
Intell.	49.3	15.0	12.2	44.2	20.0	11.8	51.6	20.3	7.8
Interests	4.9	18.4	20.9	7.0	23.5	37.6	0.0	17.2	29.7
Family	16.4	27.4	26.3	16.3	23.5	18.8	9.3	12.5	25.0
Worries	9.3	15.6	19.7	4.7	17.6	10.6	17.2	23.4	17.2
Pers'ty	3.7	9.3	14.7	1.1	4.8	11.8	0.0	6.3	12.5
Total	100	100	100	100	100	100	100	100	100
N	322	321	320	86	85	85	64	64	64

Problem 10: "Kay Johnson is enrolled in the college preparatory ...."

Type of info.	Choice of teachers			Choice of administrators			Choice of counselors		
	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
Achieve.	6.5	7.1	12.7	4.8	4.8	7.2	1.6	9.7	14.2
Intell.	37.0	22.4	18.0	34.5	19.0	20.2	38.7	24.2	13.1
Interests	38.2	34.5	15.2	35.7	26.2	19.1	40.3	29.0	16.4
Family	10.6	13.7	22.7	16.6	23.8	19.0	8.1	14.5	26.2
Worries	1.8	4.9	24.2	2.4	6.0	19.0	3.2	6.5	9.8
Pers'ty	5.9	17.4	7.2	6.0	20.2	15.5	8.1	16.1	19.8
Total	100	100	100	100	100	100	100	100	100
N	322	322	322	84	84	84	62	62	61

Problem 11: "Andy Wilson causes trouble for ...."

Achieve.	5.3	5.6	6.3	1.2	1.2	7.2	3.2	8.0	11.3
Intell.	19.7	10.9	16.3	20.2	8.4	9.6	22.6	9.7	17.7
Interests	10.3	22.5	22.6	11.9	27.4	24.1	4.8	21.0	22.6
Family	35.3	29.4	19.1	34.6	19.0	25.3	25.8	21.0	21.0
Worries	14.1	18.5	16.9	19.0	23.8	20.5	22.6	25.8	16.1
Pers'ty	15.3	13.1	18.8	13.1	20.2	13.3	21.0	14.5	11.3
Total	100	100	100	100	100	100	100	100	100
N	320	320	319	84	84	83	62	62	62

III. Notes on unfolding.

In seeking a dominant dimension underlying (in a parsimonious sense) the responses of a group of respondents, Coombs' unfolding technique was used. In choosing three types of information in order out of six, a respondent can be postulated to be basing his choice on an underlying dimension (which orders the six types from most positive in some respect to most negative in that respect) if his three choices can be seen to lie successively farther away from some single point in the series of six types, and if the unchosen three types are all still farther from the respondent's "ideal" point. (Cf. Figure 1 and the accompanying explanation for the illustrative Prob. 2.) For any underlying order of the six stimuli, there are some "order 3" responses which will fit it and some which will not.*

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*For six stimuli, there are $\binom{6}{3} = 20$ combinations of three stimuli which can be selected, and 3! = 6 ways in which the three can be ordered; consequently, there are 120 possible response patterns for "order 3 of 6." But to any particular order of the six stimuli with a particular ordering of distances among them, only 13 response patterns can be fitted; and if the spacing of stimuli is ignored, still only 16 response patterns can be unfolded onto the underlying order. See Appendix II.

For example, let the six types be labelled by lower-case letters; the diagram below shows one way thirteen "order 3" responses can unfold onto a particular underlying order a-b-c-d-e-f.

a	b	c	d	e	f
1	2	3			
2	1	3			
3	1	2			
	1	2	3		
	2	1	3		
	3	1	2		
	3	2	1		
		2	1	3	
		3	1	2	
		3	2	1	
			2	1	3
			3	1	2
			3	2	1

If the spacing in the underlying order were different, the set of patterns which could unfold upon it would be somewhat different. With the spacing we chose for illustration, the response pattern b-c-d (fourth pattern) will fit, but the pattern c-b-a will not. With different spacing within this same underlying order, the latter pattern would fit, while the former would not. For the data collection method "order 3 of 6" there are three points in the underlying order where the particular spacing relations will permit one response pattern instead of another; namely, the fourth, seventh, and tenth patterns. For the method "order 3 of 6" there are, therefore, $2^3 = 8$ sets of response patterns each of which contains response patterns unfoldable onto an underlying order. The eight sets are exhibited in the next section of this appendix.

IV. Possible unidimensional unfolding sets for responses ordering 3 of 6 items.

Set 1

a	b	c	d	e	f
1	2	3			
2	1	3			
3	1	2			
	1	2	3		
	2	1	3		
	3	1	2		
		1	2	3	
		2	1	3	
		3	1	2	
			1	2	3
			2	1	3
			3	1	2
			3	2	1

Set 2

a	b	c	d	e	f
1	2	3			
2	1	3			
3	1	2			
	1	2	3		
	2	1	3		
	3	1	2		
		1	2	3	
		2	1	3	
		3	1	2	
			2	1	
			2	1	3
			3	1	2
			3	2	1

Set 3

a	b	c	d	e	f
1	2	3			
2	1	3			
3	1	2			
	1	2	3		
	2	1	3		
	3	1	2		
	3	2	1		
		2	1	3	
		3	1	2	
			1	2	3
			2	1	3
			3	1	2
			3	2	1

Set 4

a	b	c	d	e	f
1	2	3			
2	1	3			
3	1	2			
	1	2	3		
	2	1	3		
	3	1	2		
	3	2	1		
		2	1	3	
		3	1	2	
		3	2	1	
			2	1	3
			3	1	2
			3	2	1

Set 5

a	b	c	d	e	f
1	2	3			
2	1	3			
3	1	2			
3	2	1			
	2	1	3		
	3	1	2		
		1	2	3	
		2	1	3	
		3	1	2	
			1	3	3
			2	1	3
			3	1	2
			3	2	1

Set 6

a	b	c	d	e	f
1	2	3			
2	1	3			
3	1	2			
3	2	1			
	2	1	3		
	3	1	2		
		1	2	3	
		2	1	3	
		3	1	2	
		3	2	1	
			2	1	3
			3	1	2
			3	2	1

Set 7

a	b	c	d	e	f
1	2	3			
2	1	3			
3	1	2			
3	2	1			
	2	1	3		
	3	1	2		
	3	2	1		
		2	1	3	
		3	1	2	
			1	2	3
			2	1	3
			3	1	2
			3	2	1

Set 8

a	b	c	d	e	f
1	2	3			
2	1	3			
3	1	2			
3	2	1			
	2	1	3		
	3	1	2		
	3	2	1		
		2	1	3	
		3	1	2	
		3	2	1	
			2	1	3
			3	1	2
			3	2	1

APPENDIX N

Test Familiarity Questionnaire

APPENDIX N

Test Familiarity Questionnaire

Check your degree of familiarity with the thirty tests listed below by writing the appropriate letter on the line to the right of each test.

A - Have never heard of the test.

B - Recognize the name, but have no other knowledge about the test.

C - Know what the test measures in a general way.

D - Have examined (or studied about) the test and am fairly familiar with it.

Be sure to write a letter after every test.

1. Stanford-Binet I.Q.___
2. Bell Adjustment Inventory___
3. Arting Reading Ability___
4. Strong Vocational Interest___
5. Hart Personality Schedule___
6. Iowa Silent Reading___
7. Ace Psychological___
8. Jenson Inventory___
9. Seashore Musical Talent___
10. Burnham Interest Inventory___
11. Cuyler Aptitude Battery___
12. MMPI___
13. Kuder Preference Record___
14. CTMM___
15. Durwith's Study Skills___
16. AIMC___
17. Gates Reading___
18. Ender's Paragraph Reading___
19. Boring's Occupational Inventory___
20. California Test of Personality___
21. Coop. Achievement___
22. Lunt Spatial Relations___
23. TRSP___
24. Bernreuter Personality___
25. Bauman Interest Blank___
26. SCAT___
27. STEP___
28. NIRO___
29. PREP___
30. Miller Preference Blank___

APPENDIX O

Role Checklist Items Showing Percentage of Subjects Who Stated the Item is an Appropriate Duty for a Counselor, and Rank of the Item in Terms of Percent of Approving Responses.

APPENDIX O

Role checklist items showing percentage of subjects who stated the item is an appropriate duty for a counselor and rank of the item in terms of percent of approving responses.

	Fall 1959		Spring 1960		Fall 1960	
	%	Rank	%	Rank	%	Rank
Explain to parents (when they ask) the general meaning of certain of their child's test results and confer with those who come in with problems concerning their children.	94	1	96	1.5	94	2
Counsel students regarding choice of high school courses, high school curricula, and possible vocations.	92	2	96	1.5	98	1
Advise on grouping students into ability levels and on routing them into various courses of study. (College preparatory, vocational, etc.)	86	3	86	4	86	3
Assist staff members in deciding which students should be enrolled in certain courses (e.g. algebra vs general math, chemistry vs general science, etc.).	82	4	88	3	85	4
Notify all students that certain test data have been received and encourage them to come in for conference regarding them.	81	5	78	5	70	8
Conduct group meetings with students to discuss general questions of curriculum and course selection, and how test scores can help answer those questions.	77	6.5	76	7	71	6.5
Make a study of test data and select particular students to be called in for conference.	77	6.5	70	10.5	64	14
Conduct small faculty "case conferences" meetings on particular students in which test and other data are brought into proper perspective.	75	8	73	8	65	13
Compile and arrange a file of selected information about students which is freely accessible to all teachers.	74	9.5	77	6	74	5

(continued)

	Fall 1959		Spring 1960		Fall 1960	
	%	Rank	%	Rank	%	Rank
Invite teachers to group meetings to learn more about the interpretation of tests.	74	9.5	70	10.5	67	9
Counsel students regarding family and other types of emotional problems.	72	11	70	10.5	71	6.5
Establish regular conferences with individual teachers to discuss actual student cases.	68	12	57	23	56	21
Conduct a study of student needs and use the results to plan the conduct of counseling services.	66	13.5	65	14	66	11
Act as a first level of referral for failing students.	66	13.5	70	10.5	66	11
Teach at least one regular subject-matter class (e.g., math, English, etc.).	64	16	57	23	55	22.5
Conduct meetings scheduled by authority of the principal in which teachers can learn more about the interpretation of tests.	64	16	66	13	66	11
Invite teachers to group meetings to learn more about the aims, techniques, and values of counseling.	64	16	58	21	63	15.5
Conduct meetings scheduled by authority of the principal in which teachers can learn more about the techniques, purposes and values of counseling.	62	18.5	60	18	62	17
Conduct a general faculty briefing meeting after test data are received and discuss the results and possible uses in general terms.	62	18.5	60	18	58	19.5
Maintain the cumulative student record files.	60	20.5	61	15.5	54	24
Set up a schedule of required conferences with all students regarding their test results.	60	20.5	60	18	53	25
Send written notice to all staff members that test data have been received and are available.	59	22.5	61	15.5	63	15.5

(continued)

	Fall 1959		Spring 1960		Fall 1960	
	%	Rank	%	Rank	%	Rank
Confer with teachers regarding general problems of motivation, discipline, etc.	59	22.5	57	23	60	18
Conduct small group faculty meetings to discuss the interpretation and use of tests to help solve problems specific to that group (e.g. science department, language department, etc.).	56	24	59	20	58	19.5
Confer with individual teachers regarding the kinds of tests they might need in their own work.	53	25	55	25	55	22.5
Make a study of test data and select particular parents to be called in for conference.	52	26	45	32	40	33
Hold small group faculty meetings to discuss the particular needs of various departments (such as science, industrial arts, language, etc.) in regard to the kinds of tests that would be most useful.	50	27	53	26	50	27
Conduct large group meetings with parents (for example, at PTA) to explain and interpret test scores in general terms.	49	28	49	28.5	47	29.5
Meet with students as a group and discuss their test results in general terms.	48	29	51	27	48	27.5
Make a study of test and other data and draw up a general report for the principal regarding the student body at large.	45	30.5	46	31	48	27.5
Chaperone school dances, athletic events, etc.	45	30.5	47	30	47	29.5
Conduct general faculty planning meetings to discuss staff needs with regard to the kinds of tests that would be most useful.	44	32.5	49	28.5	45	31
Notify all parents that certain test results have been received and encourage them to come in for conferences.	44	32.5	41	34.5	36	35

(continued)

	Fall 1959		Spring 1960		Fall 1960	
	%	Rank	%	Rank	%	Rank
Assist teachers to build their own files for the students in their classes (or in their homerooms).	38	34.5	41	34.5	37	34
Arrange for group tests to be scored by agencies outside the school.	38	34.5	43	33	43	32
Conduct special classes in "careers," "group guidance," "marriage," etc.	37	36	33	36	34	36
Have an extra-curricular club.	20	37	20	37	21	37
Act as a first level of referral for disciplinary and truancy problems.	18	38	17	38	13	38
Be responsible for such things as re-admitting students after absences, transferring students to other schools, etc.	12	39	9	39	8	39

APPENDIX F

Mean Adjusted Respect
Levels Within Groups
of Pairs of Persons
Classified by Communication Level, and
Related Information,
School by School.

APPENDIX P

Mean adjusted respect levels within groups of pairs of persons classified by communication level, and related information, school by school.

			Mean adjusted deviation from school mean respect level			Number of pairs in group		
School number	School mean respect level	Total pairs	Clique group	Conn. group	Uncon. group	Clique group	Conn. group	Uncon. group
018	.13	903	.21	.08	-.02	76	30	797
091	.33	300	.44	.13	-.06	25	25	250
117	.19	276	.20	.07	-.04	37	15	224
153	.21	253	.28	.07	-.04	27	19	207
188	.12	210	.32	-.07	-.01	8	7	195
264	.23	190	-.06	.03	.00	12	13	165
280	.15	300	.03	-.02	.00	17	18	265
281	.31	105	.22	-.12	-.02	12	10	83
430	.16	406	.16	.20	-.02	13	28	365
484	.13	231	.01	.05	-.01	10	22	199
274	.17	190	.09	.05	-.02	27	10	153
488	.25	253	.16	.22	-.05	35	19	199
495	.10	435	.22	.08	-.01	9	36	390
531	.29	105	.03	None	-.02	32	0	73
600	.05	300	.19	.08	-.02	22	8	270
601	.20	210	.11	.10	-.02	16	20	174
602	.10	253	.08	.01	-.02	39	23	191

APPENDIX Q

An Index of Influence by one Individual on Another for Multiple-Item, Non-Homogeneous Instruments.

APPENDIX Q

AN INDEX OF INFLUENCE BY ONE INDIVIDUAL ON ANOTHER

FOR MULTIPLE-ITEM, NON-HOMOGENEOUS INSTRUMENTS

When answers are given by a teacher and by the SIP to a number of multiple-choice items and a measure of agreement between teacher and SIP is taken at two times by counting the items on which the two persons chose the same answer, it might seem at first glance that the SIP's influence could be gauged by attributing the influence source of a change in agreement to the individual with the greater stability. However, a logical analysis shows this to be a dubious assumption; the logical analysis is corollary to the development of the index which follows:

Let the class T_1 be the answers given to the 39 items by the teacher at time 1, S_1 be those given by the SIP at the time 1, and similarly for T_2 and S_2.

$T_1 \cap S_1$ will be the answers to items which are identical in T_1 and S_1 -- the intersection of the answers of T and S at time 1. In other words, these are the answers upon which T and S agree at time 1. Similarly, $T_1 \cap T_2$ is the intersection of T's answers at the two times -- the items on which T is stable.

Let $m(T) = 39$ be the number of answers given in T. Let $m(T_1 \cap S_1)$ be the number of same-lettered items in $T_1 \cap S_1$. (This particular example is the index of agreement with SIP at time 1.) and so forth.

Now, $S_1 \cap S_2 \cap T_2$ contains the answers on which S was stable and on which S and T agree at time 2.

$S_1 \cap S_2 \cap T_1$ contains the answers on which S was stable and on which S and T agreed at time 1.

If $m(S_1 \cap S_2 \cap T_2) > m(S_1 \cap S_2 \cap T_1)$, then the greater area of agreement within S_1 S_2 is due to changes in T. Thus $m(S_1 \cap S_2 \cap T_2) - m(S_1 \cap S_2 \cap T_1)$

is a count of the net number of items which T changed from non-agreement to agreement with S's stable items. In other words, this difference is the excess of items on which T changed into agreement with S's stable items over those on which T changed out of agreement with them.

Similarly, $T_1 \cap T_2 \cap S_1$ contains the answers on which T was stable and on which S and T agree at time 1.

$T_1 \cap T_2 \cap S_2$ contains the answers on which T was stable and on which S and T agree at time 2.

If $m(T_1 \cap T_2 \cap S_2) > m(T_1 \cap T_2 \cap S_1)$, then the greater area of agreement within $T_1 \cap T_2$ is due to the changes in S. Thus, $m(T_1 \cap T_2 \cap S_2) - m(T_1 \cap T_2 \cap S_1)$ is a count of the net number of items which S changed from non-agreement to agreement with T's stable items.

The difference in the remaining items (those not included in the class-intersections mentioned above) between agreement at time 1 vs time 2 is a result of changes by both T and S, and there seems to be no reasonable way, in regard to these remaining items, to claim that one person moved into agreement with the other rather than vice versa.

As a measure of net influence by S on T, let us use the difference between net changes by T into agreement with stable items of S and net changes by S into agreement with the stable items of T; that is,

$$\text{Infl} = m(S_1 \cap S_2 \cap T_2) - m(S_1 \cap S_2 \cap T_1) - m(T_1 \cap T_2 \cap S_2) + m(T_1 \cap T_2 \cap S_1) \qquad [\text{Equ.}(1)]$$

Now, the count of items in $S_1 \cap S_2 \cap T_2$ added to the count in $T_1 \cap T_2 \cap S_1$ (the first and last terms in the expression for Infl above) is in the count of items which are in either of them, or both, and the items in their intersection are counted twice. That is,

$$\begin{aligned} m(S_1 \cap S_2 \cap T_2) + m(T_1 \cap T_2 \cap S_1) &= m\,[(S_1 \cap T_2 \cap S_2) \cup (S_1 \cap T_2 \cap T_1)] \\ &\quad + m\,[(S_1 \cap T_2 \cap S_2) \cap (S_1 \cap T_2 \cap T_1)] \\ &= m\,[(S_1 \cap T_2) \cap (S_2 \cup T_1)] \\ &\quad + m(S_1 \cap S_2 \cap T_1 \cap T_2). \end{aligned}$$

And for the other two terms in (1),

$$\begin{aligned} m(S_1 \cap S_2 \cap T_1) + m(T_1 \cap T_2 \cap S_2) &= m\,[(S_2 \cap T_1 \cap S_1) \cup (S_2 \cap T_1 \cap T_2)] \\ &\quad + m\,[(S_2 \cap T_1 \cap S_1) \cap (S_2 \cap T_1 \cap T_2)] \\ &= m\,[(S_2 \cap T_1) \cap (S_1 \cup T_2) \\ &\quad + m(S_1 \cap S_2 \cap T_1 \cap T_2). \end{aligned}$$

Substituting in (1),

$$\text{Infl} = m\left[(S_1 \cap T_2) \cap (S_2 \cup T_1)\right] - m\left[(S_2 \cap T_1) \cap (S_1 \cup T_2)\right]. \qquad (2)$$

This formula can guide the computing. The indices of influence given in this report were computed by using IBM cards and a light-table. The appropriate cards were superimposed over the light-table and the number of holes showing light were counted.

END

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